

# 1. Proposer Structure

## 1.1. Proposer







The Proposer is Isolux Infrastructure Netherlands B.V. ("Isolux Infrastructure" or "Isolux").

For the purpose of submitting this SOQ, the Proposer and its team members have adopted the name of "I-69 Development Partners", hereinafter referred to as the "Team" or the "Proposer".

**Single point of contact:** The point of contact for the I-69 Development Partners Team is:

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The I-69 Development Partners Team is formed by the members highlighted in Table 1.

Proposer		
	Isolux Infrastructure Netherlands B.V. Limited Liability Company The Netherlands	
Equity Members		
	Legal Name	Isolux Infrastructure Netherlands B.V.
	Legal Nature	Limited Liability Company
	State of Organization	The Netherlands
	Role	Equity Member
	Equity Ownership	100%
Major Non-equity Members		
	Legal Name	AZTEC Engineering Group, Inc.
	Legal Nature	Corporation
	State of Organization	Arizona, USA
	Role	Lead Engineering Managing Partner
	Legal Name	TYPESA (Técnica y Proyectos S.A.)
	Legal Nature	Corporation under the laws of Spain (Sociedad Anonima)
	State of Organization	Spain (branch office in Arizona)
	Role	Lead Engineering Firm Partner
	Legal Name	Corsan-Corviam Construcción, S.A.
	Legal Nature	Corporation under the laws of Spain (Sociedad Anonima)
	State of Organization	Spain
	Role	Lead Contractor
	Legal Name	Isolux Infrastructure Netherlands B.V.
	Legal Nature	Limited Liability Company
	State of Organization	The Netherlands
	Role	Lead Firm Responsible for Operation and Maintenance

Other Identified Non-equity Members		
<b>BURGESS &amp; NIPLE</b>	Legal Name	Burgess & Niple, Inc.
	Legal Nature	Corporation
	State of Organization	Ohio (branch office in Indiana)
	Role	Design Specialist
 <b>CHRISTOPHER B. BURKE ENGINEERING, LLC</b>	Legal Name	Christopher B. Burke Engineering, LLC
	Legal Nature	Limited Liability Company
	State of Organization	Indiana
	Role	Design Specialist
 <b>INFRASTRUCTURE ENGINEERING   INCORPORATED</b>	Legal Name	Infrastructure Engineering, Inc
	Legal Nature	Corporation
	State of Organization	Illinois (branch office in Indiana)
	Role	Design Specialist
 <b>Gradex, Inc.</b> <i>grading &amp; excavating</i>	Legal Name	Gradex, Inc.
	Legal Nature	S Corp
	State of Organization	Indiana
	Role	Excavation and Underground Utilities Contractor
 <b>Force Construction Company, Inc.</b>	Legal Name	Force Construction Company, Inc.
	Legal Nature	C Corporation
	State of Organization	Indiana
	Role	Bridges and Structures Contractor
 <b>E&amp;B PAVING, Inc.</b> <i>World-Class Solutions at a Local Level™</i>	Legal Name	E&B Paving, Inc.
	Legal Nature	S Corp
	State of Organization	Indiana
	Role	Paving Contractor

Table 1

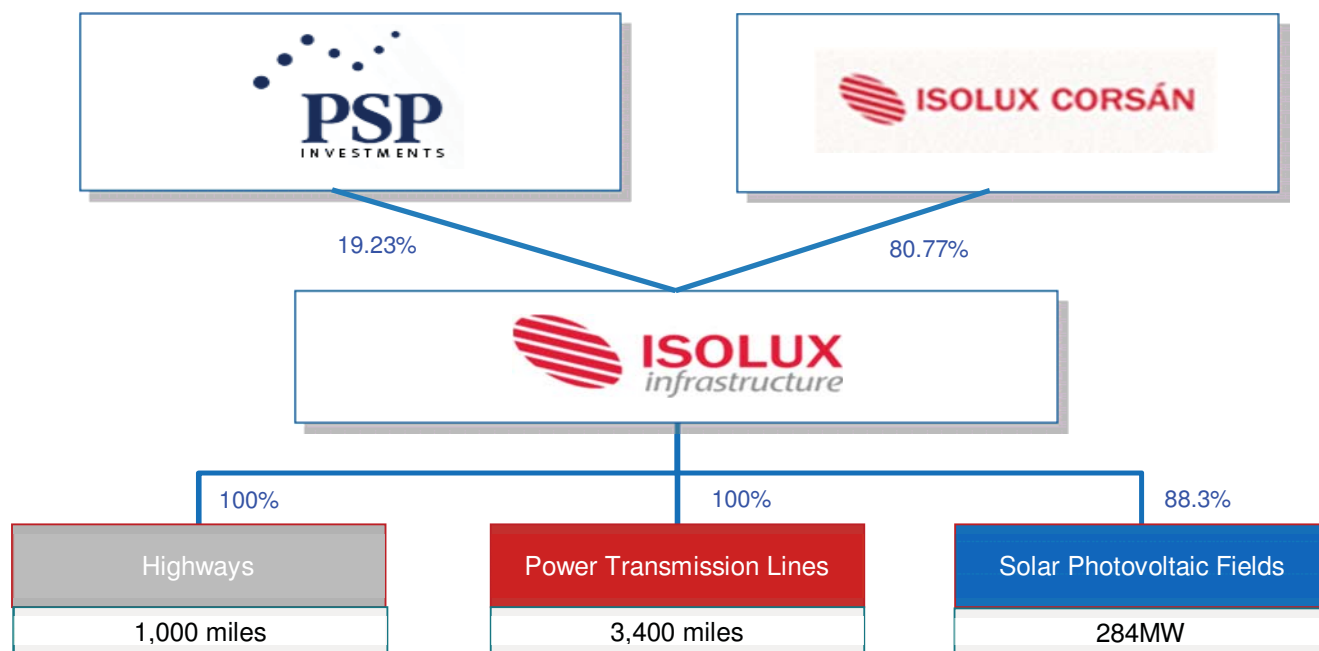
## 1.2. Equity Members

Isolux will be the sole Equity Member for the Concessionaire with a 100% ownership.

Until 2012, Isolux Concesiones was a wholly owned subsidiary of Grupo Isolux Corsán S.A. (GIC), a global company specializing in large scale infrastructure projects in five market sectors: heavy civil construction, concessions, engineering, energy and industrial services. With presence in more than 20 countries and four continents, GIC's 2012 revenue exceeded \$4.4 billion, employs directly over 7,700 people and is ranked 47 out of the top 225 International Contractors according to 2012 Engineering News Record (ENR). In 2012, GIC reorganized its global concessions business into a new entity, Isolux Infrastructure, a private limited liability company organized under the laws of The Netherlands. As part of that reorganization, Public Sector Pension Investment Board ("PSP"), an AAA rated Canadian Crown Corporation with \$60 billion of assets under management, acquired 19.23% of the equity share capital of Isolux Infrastructure. GIC retained the remaining 80.77 %. As a result of this transaction, both sponsors committed to invest into Isolux Infrastructure an amount of \$709 million of equity (\$628 million from PSP and \$81 million from GIC). This amount is fully available to fund the construction of Isolux existing concessions and also for bidding new projects such as the I-69 Section 5. As of May 2013, \$393 million have already been infused into Isolux and the remaining \$316 million will be injected when existing and/or future projects require it.

This investment strengthened Isolux Infrastructure's global position managing concessions and its capacity to expand and invest in new projects such as this one.

Isolux Infrastructure is diversified internationally and present in seven countries: USA, Mexico, Brazil, Peru, Spain, Italy and India. The company is organized in three main divisions: highways, power transmission lines and the solar photovoltaic fields' brand (of which Isolux controls 88.3%). The company manages a global concessions portfolio of eight highway concessions with a total length of about 1,000 miles and eight power transmission lines totaling more than 3,400 miles. Additionally, the company is the developer and manager of 284MW of solar photovoltaic power fields. Isolux's current investment in these projects is in excess of \$1.3 billion of equity.



**Illustration 1: Isolux Infrastructure Organization**

Isolux Division	Equity invested
Highways	\$361 million
Power Transmission Lines	\$718 million
Solar Photovoltaic Fields	\$259 million

**Table 2: Isolux invested equity June 2013 YTD**

Isolux is actively involved in the US P3 market. Currently it is negotiating in Colorado a concession agreement with the Jefferson Parkway Public Highway Authority and its financial advisor, Goldman Sachs, for the Design/Build/Finance/Operation/Maintenance (DBFOM) of a 10 mile highway with a construction cost of \$204 million, under an exclusivity agreement signed in April 2011. In March 2013, after a process of more than one year, Isolux was second ranked in a technical proposal/price for a DBFOM for the Colorado Department of Transportation US36 Managed Lanes Phase 2 project (the winning team was the Phase 1 Design/Build contractor). In 2009, Isolux was awarded with a transmission lines project in Texas, the Wind Energy Transmission Texas (WETT) project, with an investment of more than \$900 million. Isolux is also developing two solar

photovoltaic field concessions in California and Puerto Rico under power purchases agreements. The Photovoltaic Solar Fields Division is also participating in a Multiple Award Task Order Contract (MATOC) process with the US Army Corps of Engineers. A proposal was submitted on October 5, 2012 and a governmental resolution is expected for this year. All of these projects have involved detailed negotiations and coordination with different local, state and federal agencies and authorities, showing that Isolux has the expertise and experience to successfully develop all kinds of concession projects in the US.

Isolux employs more than 4,000 people around the world, 600 of them directly and 3,400 through its concessions. Isolux's workforce includes highly skilled and motivated specialists in every discipline in which the company is active. Isolux approaches each project, regardless of its size, with the same level of professionalism, business ethics and commitment to excellence.

Isolux builds long term relationships with clients and sub-contractors and its high standards allow the company to deliver efficient solutions of unmatched value to both its public and private clients.

### **1.3. Major Non-Equity Members and Other Identified Non-Equity Members**

#### **1.3.1. Lead Engineering Firm:**

The lead engineering role will be filled by the AZTEC Engineering and TYP SA. These companies plan to form a 60/40 Joint Venture (JV) to serve as the Lead Engineering Firm entity ("AZTEC-TYP SA"). Established in 1992, AZTEC has grown from a two-person firm to a corporation of over 130 personnel. For the first 10 years of the company's history, AZTEC was a DBE-qualified firm. In 2006, AZTEC became part of the TYP SA Group, an international design consultancy firm with 50 offices and over 1,800 employees; this merger is a testament to AZTEC's long-term financial stability and reputation. TYP SA was ranked 92 out of the top 200 International Design Firms in 2012, according to ENR. AZTEC-TYP SA offers a full range of civil engineering and environmental services, including a long history of working on civil projects of similar scope, complexity and risk to the I-69 Section 5 project. AZTEC-TYP SA's infrastructure experience encompasses every aspect of the transportation design from local intersection improvements to arterial streets, rural highways, interstates and urban freeways and bridges.

(Refer to Appendix 1 at the end of this SOQ for the summary of the key terms of the anticipated teaming agreement, including percentages of ownership, roles of the various parties and anticipated execution date)

#### **1.3.2. Lead Contractor:**

The lead contractor will be Corsan-Corviam Construcción, S.A. (Corsan). Corsan is a wholly-owned subsidiary of GIC and is the head company of the heavy-civil construction division. With more than 80 years of experience, Corsan operates in two business segments: heavy civil construction (highways, railroads, waterworks, etc), which represents 77% of its activity, and building construction, which represents the remaining 23%. In 2012, Corsan had total revenue of more than \$1.2 billion, including its subsidiaries around the world, and a portfolio of almost \$4.5 billion, 64% of which is international.

As a corporation Corsan has been operating as a heavy civil contractor since 1928, and due to an internal reorganization, all its activities, duties and professional classifications were integrated in a newly formed corporation established in 1989 under the laws of Spain.

With a presence in four continents and fifteen countries, Corsan has significant experience in turn-key contracts, and has been responsible for the design-build (D/B) portion of all the highway concession contracts awarded to Isolux.

### 1.3.3. Lead Firm Responsible for Operations and Maintenance:

The Concession Company will self-perform all operations and maintenance activities related to the Project. As its sole equity member, Isolux will be the firm responsible for the operations and maintenance for the Project. Following its standard procedure, Isolux will appoint an experienced and skilled management team to organize the O&M department. This management team is in charge of hiring the best professionals in the local market and then leading and overseeing them in order to fulfill all the O&M requirements. This approach has been successfully used in India, Spain, Mexico and Brazil and it will be the one developed for the I-69 Section 5 Project.

Isolux currently manages eight highway concessions. For all eight, Corsan has been or is the D/B Lead Contractor. Two of the eight are under construction and three are fully operational. The remaining three, in which the construction part of the contract involves upgrades and expansion of existing roads, are simultaneously under construction and in operation. The O&M activities for those roads are especially challenging, and Isolux has managed to achieve a high performance result to the full satisfaction of its clients.

Isolux is currently performing O&M activities in more than 850 miles of highways/roads, including highways with two and three lanes per direction, two lane roads and urban highways.

Project	Country	Isolux Share	Length (mile)	Number of lanes	Status	Isolux O&M	O&M Annual Cost
Via Bahia	Brazil	70%	423	1+1/2+2 (Road + Highway)	In Operation/ Under Construction	Yes	\$41.6m
NH-1	India	61%	181	2+2/3+3 (Highway)	In Operation/ Under Construction	Yes	\$2.5m
NH-2	India	50%	120	2+2/3+3 (Highway)	In Operation/ Under Construction	Yes	\$2.5m
NH-6	India	50%	83	2+2 (Highway)	Under Construction	Not yet started	\$1.2m
NH-8	India	50%	58	3+3 (Highway)	Under Construction	Not yet started	\$0.8m
A-4	Spain	51%	42	2+2/3+3 (Highway)	In Operation	Yes	\$4.6m
Monterrey Saltillo	Mexico	100%	59	1+1/2+2 (Highway + road)	In Operation	Yes	\$4.5m
Perote Xalapa	Mexico	50%	37	2+2 (Highway)	In Operation	Yes	\$4.3m

Table 3: P3 in which O&M activities are being Self-Performed by Isolux

### 1.3.4. Other Identified Non-Equity Members. Design Subconsultants:

**Burgess & Niple, Inc.** Burgess & Niple (B&N) was established in 1912 and today is a nationally recognized architectural and engineering firm corporately based out of Ohio with branch office in Indianapolis, IN. B&N has served more than 5,000 clients in the U.S. and abroad, including federal, state, and local governments; learning institutions; improvement districts; and a wide variety of private-sector industries. The firm is a corporation headed by a chairman elected by the board of directors. B&N is currently ranked 138th (for 2011 billings) in ENR Top 500 Design Firms. B&N employs over 400 personnel nationwide. B&N has an excellent reputation for quality and integrity in architectural and engineering services.

**Christopher B. Burke Engineering, LLC.** Christopher B. Burke Engineering, LLC (CBBEL) specializes in the planning, design and construction management of municipal and private infrastructure projects including stormwater, flood control, wastewater, environmental management, transportation and recreation. The firm was established by Christopher B. Burke, Ph.D., P.E. in 1986 and includes nearly 50 professionals in offices in Indianapolis, Fort Wayne, South Bend, Crown Point and Columbus. CBBEL was founded in water resources and has established a reputation as an industry leader when it comes to stormwater, floodplain, and watershed based work.

**Infrastructure Engineering, Inc.** Infrastructure Engineering, Inc. (IEI) is one of the largest minority-owned civil engineering firms in the Midwest with offices in Chicago, IL, Peoria, IL, Indianapolis, IN and Omaha, NE. Since its inception in 1997, IEI has served both public and private organizations with projects including multi-lane freeway/expressway reconstruction, bridge design, intersection improvements, resurfacing, drainage and utilities improvements, traffic signals, mass transit studies, as well as resident engineering and program management assistance. IEI currently has a staff of over 60 professionals consisting of engineers, technicians and administrative support and 20 registered professional engineers.

#### **1.3.5. Other Identified Non-Equity Members. Construction Subcontractors:**

**Gradex, Inc. Grading and Excavating.** Gradex, Inc., with headquarters in Carmel, IN, was founded forty years ago and has performed over 1,000 projects in Indiana and across the country. Gradex has worked as both a prime contractor and subcontractor for INDOT. Gradex employs nearly 400 people during the construction season and utilizes over 300 pieces of owned heavy equipment. Gradex, Inc. was involved in the I-69 project at Washington, Indiana. On that project, Gradex moved 4.5 million cubic yards of dirt on a 10 mile section of new terrain roadway. The Washington project had the most significant earthwork component and yet was completed the quickest of the I-69 projects in southern Indiana. Gradex has completed numerous large scale projects for INDOT similar in nature to upcoming I-69 P3 project. Those projects include a large section of I-65 in Southern Indiana near Louisville, US 31 & US24 in Peru Indiana, I-65 Design/Build on the north side of Indianapolis, SR 641 in Terre Haute, several sections of SR 25 Hoosier Heartland project, I-465 on the west side of Indianapolis, Ronald Reagan Parkway in Hendricks County along with dozens of other major reconstruction projects

**Force Construction Company, Inc.** Force Construction, with headquarters in Columbus, IN, was founded in 1946. The firm currently employs more than 300 employees between managerial and administration positions and construction workforce. Work typically self-performed by Force Construction Company, Inc. includes earthworks, storm water drainage system installation, placement of crushed stone pavements and aggregate sub-bases, site concrete, concrete foundations and slabs-on-grade, precast concrete fabrication and installation, structural steel erection, etc. Force Construction has extensive experience in developing construction projects in the state of Indiana and has built several main bridges and overpasses in other stretches of the I-69.

**E&B Paving, Inc.** Founded in 1967 and headquartered in Anderson, IN., E&B Paving, Inc. is a wholly-owned subsidiary of Irving Materials, Inc., one of the Midwest's largest concrete, aggregate and building materials suppliers with operations in Indiana, Kentucky and Tennessee. E&B Paving has ten offices, 13 permanent asphalt plants, and five portable asphalt and concrete plants strategically located throughout Indiana that deliver world-class asphalt, concrete and roller-compacted concrete paving solutions to a broad range of customers. Given its depth of paving experience, geographic scope and equipment capabilities, the firm has long been recognized by

the Indiana Department of Transportation, county and local municipal governments, and private-sector clients as being among Indiana's most comprehensive and experienced transportation construction firms. E&B currently has more than 750 employees, a unionized crew workforce, and is consistently ranked as one of the Indiana's largest transportation construction contractors.

#### **1.4. Management Structure**

If the Proposer is selected as Developer, Isolux will form a Special Purpose Vehicle (SPV) to become the concessionaire, also referred to in this SOQ as the Concession Company. The Concession Company will enter into a Public-Private Partnership Agreement (PPA) with IFA and will be its sole point of contact for the entire term of the PPA.

The Concession Company will assume responsibility for the development, design, construction, financing, and operation and maintenance (O&M) of the Project in accordance with the terms of the PPA. Maintenance includes both routine and life cycle maintenance.

For the final negotiation and closing of the Project's financing structure, the Concession Company personnel will be fully supported by Isolux, Isolux's financial department and the Team's legal and financial advisors.

Isolux will include its equity obligations for the I-69 Section 5 Project in its financial plan from the time of bid submission in anticipation of the equity contributions that would be required if the contract was awarded to the Team. Both shareholders of Isolux, PSP and GIC, will be kept constantly informed of the RFP process in order to anticipate the equity contributions that will be required if Isolux is finally the Developer of the Project.

The Concession Company will enter into a fixed-price, date certain, turnkey design and build contract (D/B Contract) with the Lead Contractor, Corsan. This date certain contract assures that the D/B works will be completed according to the schedule. The Lead Contractor will be responsible for the design and construction of the Project on a back-to-back basis with respect to the Concession Company's construction obligations under the PPA. The Lead Contractor will assume full responsibility for delivering the Project on schedule and within budget under the terms of the PPA. This back-to-back structure of the contract will guarantee the successful development of the D/B part of the Project.

This procedure has been used in the eight highway projects developed by Isolux under a DBFOM model. Corsan has taken responsibility for the D/B in all these highway projects. Together, Corsan and Isolux have successfully put into operation three complete highways, one in Spain and two in Mexico, with a cumulative length of 136 miles and a cumulative construction value over \$600 million. The two companies have also put into operation several segments of the NH-1 and NH-2 concession highway projects in India and of the Via Bahia project in Brazil. Isolux and Corsan are also currently developing two other highways in India. All together, these projects total around \$4.0 billion in construction cost.

In order to increase its efficiency when building the project, Corsan will enter into construction agreements with Gradex, Force Construction Company and E&B Paving, for the construction of specific parts of the Project that will be determined in more detail during the RFP phase.

Corsan will also enter into a design agreement with the Lead Engineering Firm AZTEC-TYPSA for the performance of the detailed design. AZTEC-TYPSA will enter into design agreements with local consultants, amongst them, Burgess&Niple, C.B.Burke and Infrastructure Engineering, for the design of various elements of the Project that will also be determined during the RFP phase.

It is important to note that Isolux and Corsan have worked with AZTEC-TYPSA on past projects period. Through these projects, solid firm relationships have been established, which will greatly aid in timely development of the design. In addition, AZTEC and Burgess and Niple have worked together on a number of projects.

The local subcontractors, Gradex, Force Construction Company and E&B Paving, have a long standing relationship and have worked together on several projects in the state of Indiana. As an example, Force Construction has teamed-up with Gradex on the Musicland Distribution Facility in Franklin, IN while E&B Paving has teamed-up with Force Construction on the INDOT, B-28285-A, Olio Road Bridge over Geist Reservoir, Hamilton County, IN. This long history of cooperation will be essential to the success of the I-69 Section 5 project. It is also worth mentioning that Gradex has worked with the three design subconsultants and Force, has worked with C.B. Burke Engineering.

During the initial design and construction period, the Concession Company will either engage or employ a highly qualified team that will be responsible for monitoring the D/B Team's performance of the project execution to ensure compliance with all of the requirements agreed to within the PPA. This team will be led by Carlos Ursua of Isolux. Carlos is a highly experienced civil engineer whose role will be Technical Deputy Project Manager.

The Concession Company will self-perform the O&M activities. Before the start of the operations, Isolux will send an experienced and skilled management team to organize the O&M department of the Concessionaire. This management team is in charge of hiring the best professionals in the local market and then leading and overseeing them so that fulfillment of the O&M requirements is ensured. If the highway is open to traffic during the construction period, the Concessionaire will coordinate both the maintenance and the construction work. Isolux has proven experience coordinating both activities simultaneously, as was done for the A-4 expressway in Spain, for the NH-1 and the NH-2 in India and for the Via Bahia project in Brazil.

The Concession Company will self-perform the life cycle maintenance for the Project. In order to successfully perform this responsibility, the Concession Company will engage the best professionals amongst Isolux internal experts and will select the best candidates in the local market. The Concession Company will be supported throughout the concession period by Isolux staff, who will lend their proven experience in similar projects constructed or under construction.

The Concession Company will also manage the interface between the design and construction phase and the operation and maintenance phases, and will have ultimate responsibility for the fulfillment of the terms of the PPA. The D/B Contract will include terms that are market standard to ensure that the Project is financeable.

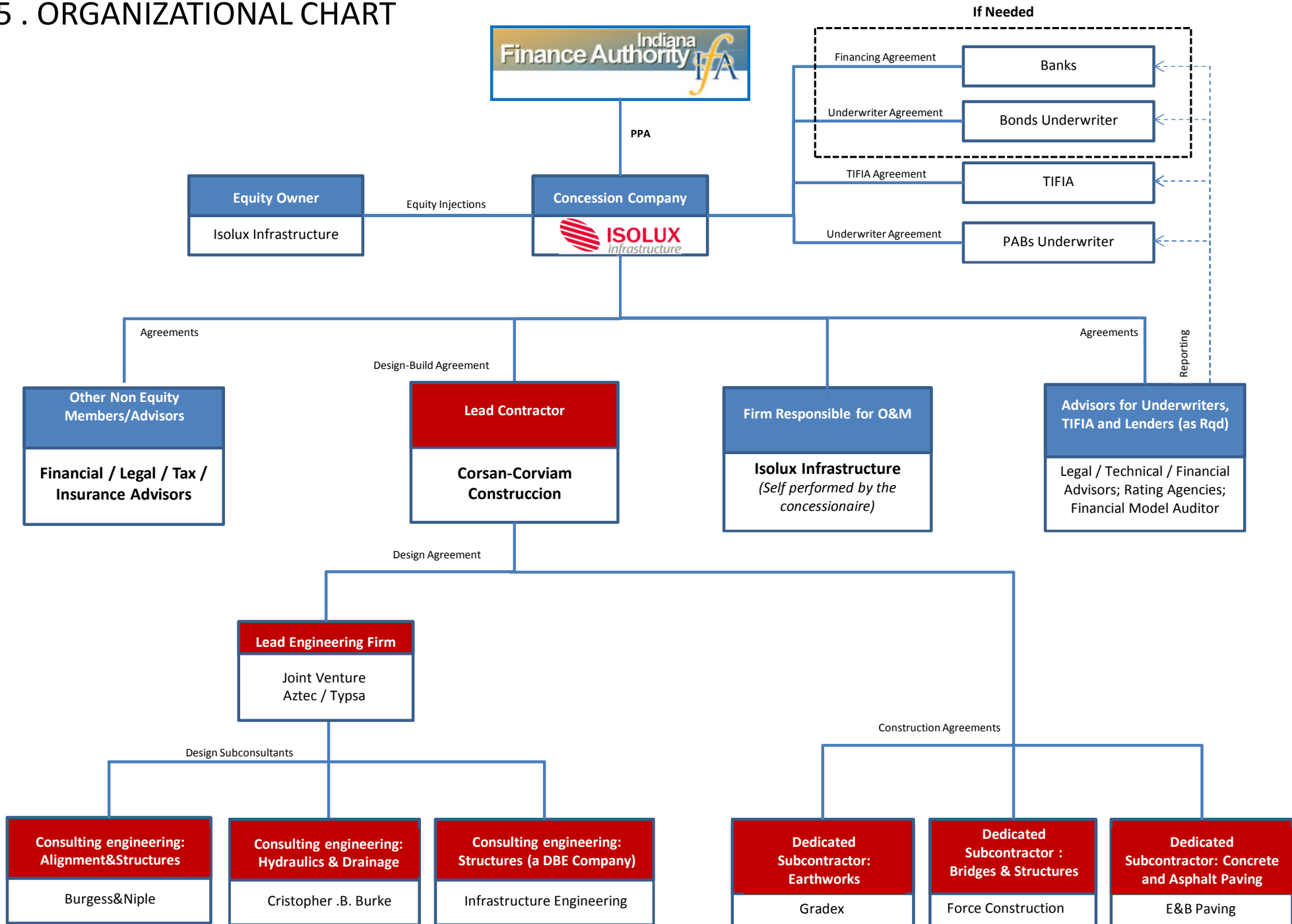
Finally, the Concession Company will be supported by legal, technical and accounting advisors as needed.

This structure has been implemented by Isolux in all of its concessions with proven successful results and maybe more importantly, the client's satisfaction. This clear allocation of roles and responsibilities, precisely regulated by the different agreements, and monitored by Concession Company staff will facilitate the successful completion of all the work required by IFA and will lead to flawless project execution.

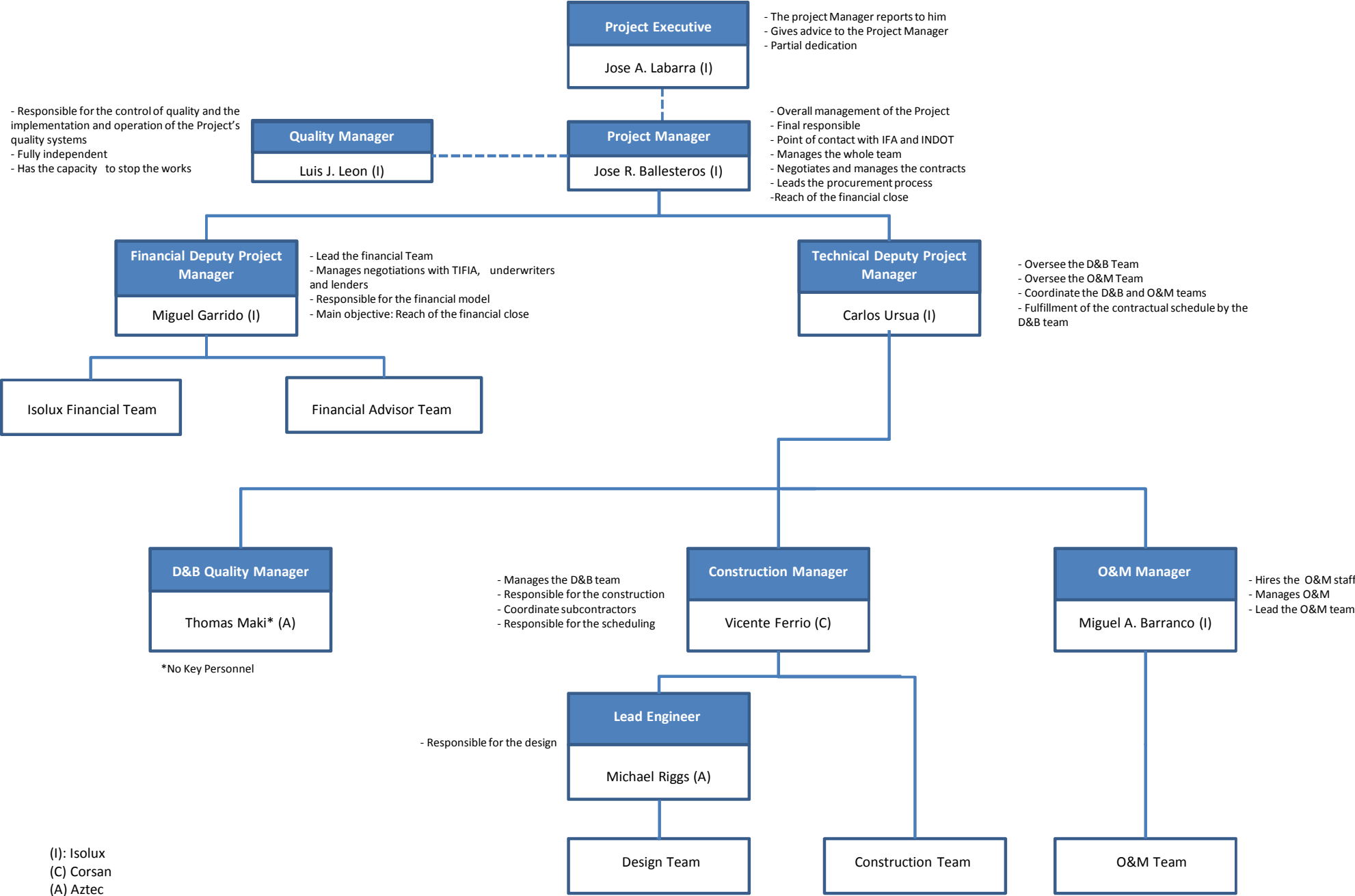
## **1.5. Organizational Chart**

The organizational charts in next pages set out the contractual organization and the key personnel organization that will be applied if the Project is awarded to the Proposer:

## 1.5 . ORGANIZATIONAL CHART



# KEY PERSONNEL CHART



## 1.6. Team Structure

As sole Equity Member of the Project, Isolux will lead the preparation of the response to the RFP during the procurement phase. Based on its previous experience, Isolux will lay out the strategic basis of a proposal that will be evaluated and optimized by the rest of the members of the Team.

Corsan and AZTEC-TYPSA will form the Design and Build team (D/B Team). It will work as an integrated entity for the validation of the preliminary design, the development of value engineering studies, and the estimation of the design and construction costs. The D/B Team will be fully supported by a number of local civil subcontractors and local design firms with experience in the State of Indiana. These companies understand perfectly the local design and construction requirements for the success of the Project. These design and construction partners have been selected according to their individual value but, also considering specially, due to their past experience working together and its knowledge of the Project. These companies are:

- Gradex (Subcontractor, Earth movement)
- Force Construction (Subcontractor, Structures and Bridges)
- E&B Paving (Subcontractor, Concrete and Asphalt paving)
- Burgess & Niple (Engineering Subconsultant firm, Highways, Structures)
- Christopher B. Burke (Engineering Subconsultant firm, Hydraulics, Drainage)
- Infrastructure Engineering, a DBE company (Engineering Subconsultant firm, Structures)

As in its other eight highway projects, Isolux will be responsible for preparation of the maintenance plan and cost estimation. The experience gained in similar types of projects in four different countries along with what has been learned in previous bids in the US (such as the US36 Managed Lanes Phase 2 and the Jefferson Parkway projects) guarantees the success of this approach.

Isolux will work in coordination with the D/B Team and Isolux experts in road and highway maintenance in the preparation of the life cycle maintenance plan and cost estimations. Lifecycle extension will be achieved through a combination of optimization of the design and carefully planned maintenance. Isolux will collaborate with the D/B Team in order to achieve an optimal design for both, the construction of the Project and the life cycle maintenance activities.

The financial plan for the proposal will be developed by the Proposer's financial advisor together with Isolux financial department. Close coordination with the Proposer's legal advisor will be needed so that all the risks associated with the Project are identified and mitigated in the financial structure. The overall coherence of the proposal will be assured by Isolux, who will coordinate the work and manage the interface and communication between the Team members.

Since the Equity Member, Lead Contractor responsible for D/B, and Lead Firm Responsible for O&M Company are firms of the same organization – Grupo Isolux Corsan, this assures an integrated functionality and consistency of purpose to the Team. This relationship also allows for key functions to benefit from clear lines of authority and responsibility and enables the Team to work in a fully integrated manner, which is essential for a successful P3 project delivery.

## 1.7. Relevant experience

The table 4 presents the experience of the I-69 Development Partners Team in the ten points requested in the RFQ.

	A-4 Madrid Ocaña Expressway (Spain)	Monterrey Saltillo Highway (Mexico)	Via bahia Highway Concesion (Brazil)	WETT (USA)	National Highway 8 (India)	Perote Xalapa Toll-Highway (Mexico)	CPTE (Brazil)	HSR Line. Tolosa-Hernialde (Spain)	Ferrol-Vilalba Motorway (Spain)	HSR Line. La Gineta - Albacete (Spain)	D4 I-595 Corridor Roadway (USA)	Interstate 10, State Route 303 (USA)
i. Design and construction of projects with karst geologic features.								X		X		
ii. Design and construction of highways and interstates; in particular those with a construction value of \$200 million or more.	X	X	X		X	X						
iii. Permitting, coordination and oversight by U.S. federal agencies such as the Army Corps of Engineers and FHWA on environmentally sensitive transportation projects.				X							X	X
iv. Design and construction of highways and interstates in urban corridors with significant maintenance of traffic issues.	X	X	X		X	X					X	X
v. Design and construction of projects with significant erosion control management.		X	X			X		X	X		X	X
vi. Operation and maintenance of highway and interstate transportation projects delivered under a public-private partnership.	X	X	X		X	X						
vii. Public-private partnership, comprehensive development and exclusive development agreements for transportation projects to which such entity has been party with a construction value of \$200 million or more.		X	X		X	X						
viii. Success in financing project finance and public-private partnership projects (both equity and debt) with specific focus on comparable transportation infrastructure projects (particularly public-private partnership transportation projects for highways and interstates).	X	X	X	X	X	X	X					
ix. As to Proposer and its Equity Members only, participation as an Equity Member in availability payment concessions				X			X					
x. As to Proposer and its Equity Members only, TIFIA financing, PABs and other credit and financing tools used in the U.S., and equity funding for public-private partnerships.	X	X	X	X	X	X	X					

**Table 4: I-69 Development Partners projects experience**

## Madrid Ocaña A-4 Expressway

### SPAIN

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**Total investment:** \$132 million

**Concession period:** 19 years

**Construction cost:** \$113 million

**O&M yearly value:** \$4.6 million

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### Members of I-69 Development Partners involved in the project:

**Equity member:** Isolux

**Lead contractor:** Corsan

**Lead firm responsible for operation and maintenance:** Isolux

**Key Personnel. Roles and Involvement:** José R. Ballesteros (Concessionaire CEO)

**Project Description:** The Madrid-Ocaña A-4 is a 42.3 mile Expressway, having 22 miles with a six lane section and 20 miles with a four lane section. With an AADT of more than 75,000 vehicles per day (vpd), this Expressway is the main transportation corridor link between Madrid and the south of Spain. The first 12.6 miles are located within a highly urbanized area.

The DBFOM contract for this brownfield project was awarded in 2007 to a consortium led by Isolux. In December 2007, the concession company, a Special Project Vehicle (SPV) formed by the members of the consortium as equity members, signed the PPA with the “Ministerio de Fomento” (“The Ministry”), which is equivalent to a department of transportation in the US, for the development of the project period. Currently Isolux’s participation in the concession company is 51.25%.

This concession has a shadow toll payment mechanism. The expressway is toll free for users and the Ministry pays the concessionaire a rate per vehicle-mile. As happens with an availability payment mechanism, this per vehicle-mile rate depends on some specific performance requirements and standards related to the operation and maintenance of the highway. Penalties can also be imposed for impermissible closures. Isolux is proud to inform the IFA that no penalty has ever been imposed for that reason.

The initial debt to equity ratio was 70/30 with \$35 million in equity and an \$84 million senior bank loan provided by BNPP (50%) and BBVA (50%). The \$35 million in equity investment was divided into \$12.5 million in shareholder’s equity and \$22.5 million in shareholders subordinated debt. During the execution of the construction works, the Ministry requested some additional works not included in the initial scope. The concessionaire and the Ministry reached an agreement according to which, the concessionaire would execute these additional works in exchange of an increase in the rate per vehicle-mile paid by the Ministry. The additional works were funded through a \$13 million participating loan from the Spanish government.

The D/B part of the project scope was executed by a JV Team, in which Corsan was the managing partner with a 50% share. The D/B agreement between the concessionaire and the JV was a fixed-price, fixed-date turnkey contract on a back to back basis recognizing the concession company’s construction obligations under the PPA.



The work consisted of reconstructing and upgrading the existing highway to achieve compliance with new regulations and technical requirements of the PPA, such as the structural capacity of the pavement, surface regularity, transverse friction coefficient, alignment, longitudinal and transverse slopes, plus the complete replacement of the existing road signs and barriers. This scope was very similar to the scope of the I-69 Section 5 project. The construction was completed on time in November 2010, maintaining the availability of the highway for traffic peak demands.

The work included two different sections: an initial urban section of 12.6 miles, and a second suburban section of 29.7 miles which passes by larger towns. The cross-section was separated either by a concrete barrier or by a median strip.

The work included the rehabilitation of the existing concrete pavement segments, the installation of a new barrier and guardrail, the replacement of signs and lights and the raising of structures in order to increase clearances. In addition, a new alignment 2.5 miles long was built in the Town of Aranjuez in order to remedy geometric deficiencies.

Quality control was performed by Corsan and quality assurance was performed both by the concessionaire's quality manager and the independent engineer of the Ministry of Public Works. Environmental issues were successfully mitigated by Corsan and the concessionaire's environmental managers. They were supervised by the safety, health and environmental coordinator appointed by the Ministry.

Corsan was also responsible for the installation of fiber optic backbone and ITS, including variable message signs, close circuit television system, microwave vehicle radar detection and road weather information systems. One of the main objectives and also one of the great achievements of the whole Team was minimizing disturbance to existing traffic. The JV carried out the construction work while roads remained open to traffic, working closely with the SPV and the Ministry's Traffic Department to plan schedules, detours, traffic shifts, night-time work, and other measures. Information for customers about any activity affecting traffic was published on the internet several days before it occurred; on the day of the activity, users were informed using the ITS system.

Operation and maintenance activities started with the execution of the PPA. As in every Isolux concession, these activities are being self-performed by the concession company. Once awarded with the project, Isolux appointed an experienced and skilled management team to start-up the O&M department of the concessionaire, hiring the best professionals amongst the local market and leading and overseeing them in order to fulfill all the O&M needs. The O&M scope includes snow and ice removal, roadway sweeping, debris removal, crack sealing, minor patching, marking, graffiti removal, ongoing erosion control, culvert cleaning and courtesy patrolling. The snow and ice removal has a significant importance in this project. After some heavy snowstorms close to Madrid a few years ago, the Minister imposed in all the new PPA a strong snow and ice removal plan. Under those requirements, the concession company equipped its O&M department with twelve snow plows and all the equipment and personnel needed to work 24h per day if necessary.

The concession company benefited from an experienced team with key personnel carefully selected from the equity members' own resources to capitalize on the company's existing knowledge.

With its dedicated construction and O&M departments, the concession company was able to successfully manage the interfaces between the construction and operation activities, guaranteeing that design and construction work were performed according to the required quality standards. The concession company also provided a financial department that is in charge of loan management, accounting and reporting.

The concession company has been supported by Isolux team and upper management as well as well-known independent technical, legal and financial advisors.

#### Relevance of Isolux experience and value provided to IFA

- Successful interface between the O&M and traffic control team members beginning with the construction phase.
- Shadow toll mechanism with a rate related to the facility performance standards and penalties as in an availability payment mechanism.
- Successful negotiation and execution of additional works, which were not included in the initial scope, when requested by the Ministry (procuring agency).
- Successful development of operation and maintenance tasks in a highway project delivered under a public-private partnership with the same approach anticipated for I-69.
- Coordination of O&M services with construction works.
- Use of several financing tools such as shareholder's equity and subordinated loan, bank debt and governmental participating loan.
- Broad knowledge of snow and ice removal management that may be required for the I-69 Section 5 Project.

#### Relevance of Corsan experience and value provided to IFA

- Fixed-price, fixed-date turnkey contract on a "back to back" basis.
- Successful management of the relationship with the concession company on a DBFOM project.
- Similar scope of work to I-69 Section 5: upgrade of a heavy traffic existing expressway that includes an urban section.
- Implementation of a successful Traffic Management Plan on a highway with an AADT of 75,000 vpd.
- Project successfully delivered on time according to the schedule fixed by the D/B agreement.

### Monterrey – Saltillo Toll Highway and Saltillo Northwest Bypass (Monterrey Saltillo)

#### MEXICO

**Total investment:** \$350 million

**Concession period:** 45 years

**Construction cost:** \$286 million

**O&M yearly value:** \$4.9 million

#### Members of I-69 Development Partners involved in the project:

**Equity member:** Isolux



**Lead contractor:** Corsan

**Lead firm responsible for operation and maintenance:** Isolux

**Key Personnel. Roles and Involvement:** Carlos Ursua (Concessionaire CEO), Miguel Garrido (Financial manager for the bonds issuance), Miguel Al Barranco (O&M manager), Luis J. Leon (Concessionaire Quality Manager), Vicente Ferrio (Corsan Construction Manager)

**Project Description:** The 59 miles of this greenfield toll concession include 31 miles of the 4-lane Saltillo–Monterrey highway and 28 miles of the 2-lane Saltillo Northwest Bypass road, both in the north of Mexico. Current AADT is around 6,500 vpd. The project was awarded to Isolux in 2006 under a DBFOM delivery format, and the concession company, consisting of Isolux as the sole equity member, entered into a PPA with the SCT (Transport and Communication Ministry) of Mexico the same year. The project began partial operations in October 2009 with the opening of the Saltillo–Monterrey toll highway and was completely open to traffic in November 2012.

Equity contributions of \$95 million were provided as required by the financial plan in a timely manner. Initially, the finance structure included a \$176 million loan from a syndicate of five banks (Banco Santander, ING Bank, Banco Inbursa, Banobras and Caja de ahorros de Galicia) and a \$79 million loan from the Mexican National Fund for Infrastructure (FONADIN). The totality of the bank debt and part of the FONADIN's loan were refinanced early in 2013 with a \$317.5 million bond issuance.

The design and build part of the project was developed by Corsan under a fixed-price, fixed-date turnkey contract on a back to back basis in regard to the concession company's construction obligations under the PPA. In order to optimize the construction schedule, Corsan began earthworks as soon as the level of development of the final design and ROW acquisitions allowed it. The remaining design work was completed simultaneously with the initial construction work.

The D/B project included 52 structures such as bridges and car underpasses and overpasses. The five railroad underpasses were constructed by Corsan in coordination with the railroad lines owner (Federal Railroad Administration) and the different train companies operating those lines (Kansas City Southern, Ferromex and Opel). As a first step, Corsan, the track owner and the train companies worked together with the SCT to obtain approval for the detail design of the structures, construction methods and railroad tracks protection. Once approved, they provided Corsan with specific work schedules. Works were carried out ensuring safety and there were not any incidents.

Corsan developed a detailed erosion control management plan. Gabion walls, 16.5 feet wide and 23 feet high, were built to protect the carriageway and prevent landslides. Double torsion metallic meshes were laid in different areas to protect the highway from small stones falling. In areas with insufficient space to place gabions due to ROW acquisition limits, anchor bolts were placed instead. To prevent scouring actions, viaduct columns were executed with deep foundations and pile caps at level minus 5, knowing they are usually executed at level minus 1.

It is worth highlighting that due to damage from Hurricane Alex in 2010, several emergency measures had to be carried out during construction to remove debris and rocks from the carriageway and restore normal traffic flow. In addition actions to repair drainage elements were carried out without traffic interruption. The highway endured hurricane damage adequately and Corsan proved its ability to manage an extreme situation.

Construction was completed minimizing disturbance to the existing traffic on the affected roads. As usual, the D/B project incorporated a Traffic Management Plan. One of the most relevant challenges took place in the municipality of Santa Catarina, near Monterrey. Due to the effect of foundation works in one large viaduct column within the main carriageway, temporary diversion

works were coordinated and approved by the municipality authorities, and always took into account the necessary measures to ensure safety of traffic during construction including signaling, pavement marking, flags, lights and flagmen.

Corsan was also responsible for the installation of fiber optic backbone and ITS, including variable message signs, closed circuit television systems, microwave vehicle radar detection, and road weather information systems. Three toll plazas with a total of 38 lanes were also built. Each toll plaza included a management and control building. A main administration building, three operation control centers, and two maintenance buildings were also built.

Operation and maintenance works are being self-performed by the concessionaire. Isolux currently employs almost 100 people for these activities which include toll collection. Several months before the opening of the Saltillo-Monterrey highway in October 2009, Isolux deployed an experienced and skilled management team led by Miguel A. Barranco, to start-up the concessionaire's O&M department. This management team hired the best professionals in the local market and, once the construction work was finished, they managed them in order to fulfill all the O&M needs.

Some other members of the concession company team were recruited in the local market. Key positions were filled by Isolux staff to apply the company's knowledge for the benefit of the project. A skilled technical department was in charge of the supervision of the design and construction ensuring the application of best industry practices to meet the requirements of the PPA.

The concession company team has closely worked since the beginning of the concession period from the support of the legal, technical and financial departments of Isolux and Isolux affiliate in Mexico.

#### **Relevance of Isolux experience and value provided to IFA**

- 100% of the equity obligations met on time according to the business plan.
- Successful development of a DBFOM project as its sole equity member.
- Successful incorporation of the concession company with a skilled and experienced team.
- Successful closing of a bank debt, a bond emission and a loan granted by the Mexican National Fund for Infrastructure.
- Successful development and implementation of operation and maintenance activities in a project delivered under a public-private partnership with the same approach anticipated for I-69 Section 5.
- Staff for operation and maintenance positions hired locally.

#### **Relevance of Corsan experience and value provided to IFA**

- 100% responsibility for the D/B development of the project.
- Fixed-price, fixed-date turnkey contract on a back to back basis.
- Successful management of the relationship with the concession company and stakeholders on a DBFOM project
- Optimal relationships with local equipment and material suppliers.
- Extensive traffic control management in the urban areas of Saltillo and Monterrey.
- Execution of a detailed Erosion Control Management Plan.
- Project completed on time according to the schedule set by the D/B agreement.

## Via Bahia Concession Project

### BRAZIL

**Total investment:** \$1.63 billion

**Concession period:** 25 years

**Construction cost:** \$1.59 billion

**O&M yearly value:** \$41.6 million

### Members of I-69 Development Partners involved in the project:

**Equity member:** Isolux

**Lead contractor:** Corsan

**Lead firm responsible for operation and maintenance:** Isolux

**Key Personnel. Roles and Involvement:** Miguel Garrido (SPV Project Finance Lead), Vicente Ferrio (Corsan Construction Manager during 2009 and 2010)

**Project Description:** Via Bahia is a 423 miles long, 25-year toll road concession, located in the state of Bahia in the northeast region of Brazil. It includes a 334 mile, 2-lane highway (BR-116) and a 70 mile multi-lane highway (BR-324) in a very urbanized area. It also included the ring roads of Feira de Santana and Vitória da Conquista, two of the most important cities in the state.

BR- 324 connects Salvador, the state capital, with Feira de Santana, the second largest city of Bahia. BR-116 is one of the most important federal highways in the country and one of the largest. It was built for transport of merchandise from the northern ports to the southern regions of the country.

This concession was awarded during the 2nd phase of the Federal Road Auction process, which took place in 2009. The concession company consisting of Isolux (70%) and Encalso Construções (30%) entered into a PPA under a DBFOM format with the Agencia Nacional de Transportes Terrestres in 2009.

An amount of \$46 million out of the \$229 million in total equity contributions has already been provided in a timely manner as required by the financial plan. An initial short term bank debt was granted by the Safra Group in 2011. This two-year term bridge loan was used to start construction works and was refunded with the first disbursements of a long term loan which was closed in December 2012 with BNDES. BNDES is the Brazilian Development Bank, a federal agent formed in 1952 to provide financial support mechanisms to companies investing in Brazil. This long term loan, totaling \$475 million is divided in three packages (tranches). Tranche A totaling \$213 million is currently being disbursed and should be repaid by 2014. Tranche B, totaling \$104 million will be drawn down during 2014 and 2015, and should be repaid by 2025. Tranche C, totalizing \$157 million will be drawn down during 2016 and 2017, and should be repaid by 2027. Additionally, another \$143 million 15-year loan has been secured with a syndicate of three banks (Banco Votantim, Banco Espírito Santo and the Arab Banking Corporation). The remaining funds are being financed by the toll revenue generated since the beginning of the concession period and which amounted to \$100 million in 2012. This financial structure is the most suitable one to face the specific challenges of this project, with major construction works extending along a very long period.



The D/B part of the project included the improvement of the existing highway and roads and the increase of its capacity by adding a new lane per direction. This widening is divided in two phases. Phase 1 includes the widening of 43.5 miles of the BR-116 highway and 8.5 miles of Feira de Santana ring road during the first years of concession. After this first phase is achieved, the concessionaire is responsible for the duplication of the segments reaching an AADT of 6,500 vpd during this second phase.

This first D/B phase has a construction value of \$405 million and has been underway since January 2012 with Corsan as managing party of the D/B joint venture with a 70% share. Completion is expected for February of 2014. It includes earthworks, drainage, pavement, structures, horizontal and vertical signage and lighting. During its execution more than 4,000,000 yd<sup>3</sup> will be excavated and transported and almost 250,000 tons of asphalt and 46,000 yd<sup>3</sup> of reinforced concrete will be used. Around 24 new footbridges and several railroad overpasses will be also erected along the whole project, as well as 6 miles of frontage roads.

Corsan is also working on the pavement surface maintenance, by milling the existing pavement and replacing it with new asphalt pavement. Full depth asphalt mill patching is a high production process designed to achieve maximum efficiency in the removal and replacement of the entire cross section of asphalt pavement in a timeframe of less than a day. This process is convenient when there are time constraints, as in this case. In some cases, it is necessary to remove one traffic lane of existing pavement leaving the other lane opened to traffic flow. Up to May 2013, more than 60,000 yd<sup>3</sup> of existing pavement had been replaced.

Erosion control management includes the execution of side ditches along the highway alignment to protect the embankments, as well as drainpipes, curbs and devices for energy dissipation. Geotextile layers are also used on the embankment slopes near rivers in order to prevent soils detachments reaching the riverbeds. Additionally, the embankments will be covered in vegetation in order to prevent material detachments and reconstruct the original environmental conditions.

The construction progress of this first phase is currently close to a 60% and the number of active workers involved is around 1,200. Corsan was also responsible for the management of the detailed design of all these improvements, leading a team of multidisciplinary Spanish and Brazilian engineers in order to obtain the best technical solution for each case.

Operation and maintenance works are being self-performed by the concessionaire. Isolux currently employs 300 people for these activities (not including the toll collection staff). Isolux deployed an experienced and skilled management team to start-up the O&M department of the concessionaire. This management team hired the best professionals in the local market and have led them and monitored the entire process to fulfill all the O&M needs. The O&M scope includes emergency assistance, roadway sweeping, debris removal, crack sealing, minor patching, marking, graffiti removal, ongoing erosion control, culvert cleaning and courtesy patrolling.

A highly skilled management team for the concession company was fully recruited in the local market. This team, divided into three departments (financial, construction and operations), engages more than 700 people.

The concession company team is being supervised and supported by Isolux legal, technical and financial departments in Spain and Brazil.

#### **Relevance of Isolux experience and value provided to IFA**

- Successful incorporation of the concession company with a highly skilled and experienced team.

- Successful negotiations with the Brazilian Development Bank, a federal agent, in order to reach a long term loan.
- Close of a financial structure suitable and adapted to the particular requirement of this project.
- Successful development of operation and maintenance in a project delivered under a public-private partnership with the same approach anticipated for I-69 Section 5.
- Coordination of O&M services with construction works.
- Local staff hired for operations and maintenance positions.

### Relevance of Corsan experience and value provided to IFA

- Development of the detailed design according to the customer's needs and respecting the Brazilian standards, in terms of highest performance and lowest cost.
- Successful execution of the improvements, implementing high standards of safety, both for workers and road users.
- Extensive traffic control management in the urban areas.
- Improvement of traffic conditions by replacing the existing pavement with asphalt mill patching, without traffic interruption.
- Execution of a detailed erosion control management plan and successful execution of the improvements, protecting the environment, according to the Brazilian laws and rules.
- Technical and executive support given to the concessionaire for O&M services.
- Local staff hired and local subcontracting.

## WETT (Wind Energy Transmission Texas)

TEXAS, USA

**Total investment:** \$830 million

**Concession period:** Unlimited

**Construction cost:** \$670 million

**Members of I-69 Development Partners involved in the project:**

**Equity member:** Isolux

**Key Personnel. Roles and Involvement:** Miguel Garrido (Project Finance Lead)

**Project Description:** Wind Energy Transmission Texas, LLC (WETT), an Isolux Infrastructure's affiliate, was selected in 2009 by the Public Utility Commission of Texas (PUCT) for the construction, operation and maintenance of seven 345kV high-voltage transmission lines with a total length of around 375 miles and six substations. The project crosses 12 West Texas counties and connects the renewable resource-rich areas in the west of the state with the load centers in the eastern and central areas of the state.



WETT was the first concession awarded to Isolux in the US. Through this award, Isolux became the first non-US company to be awarded such a contract through a competitive process of this kind. The PUCT selected the consortium formed at a 50/50 by Isolux and Brookfield Asset Management from a list of qualified companies considering this team was the most capable for financing, developing and operating the project.

Construction activities began in late 2011 and are currently nearing completion, with a complete start of commercial operation expected for the third quarter of 2013. Current percentage of work completed is close to 100%.

Before the construction started, WETT applied for and obtained its Certificates of Convenience and Necessity (CCN). The CCN certifies the need, appropriateness and convenience of the selected project from a design, cost, schedule and environmental and socioeconomic impacts perspective. The CCN approval requires the performance of environmental studies as well as open houses and extensive public communications in the affected areas. Some of these permits were approved by US federal agencies such as:

- Nationwide Permit 12, approved in July 2011 by the US Army Corps of Engineers. This permit refers to waterway crossings and wetland impacts within the US Army Corps of Engineers jurisdiction.
- Wildlife Management Plan: approved in July 2011 by the US Department of Interior, US Fish & Wildlife Services. This permit refers to federally listed species of the Endangered Species Act implementation.
- Permits related to two airports were approved by the Federal Aviation Administration (FAA).

Besides these federal permits, other permits were required and approved by different state and local agencies such as the Texas Commission for Environmental Quality, the Texas Historical Commission and the Texas Parks and Wildlife Department. Several permits regarding line and railroad crossings were also obtained from TxDOT and from the Union Pacific Railroad. WETT has coordinated successfully with the railroad companies and TxDOT where the transmission lines crossed their facilities.

The revenues for the project are approved by the PUCT, based on the traditional American transmission cost of service model. This model contemplates an availability payment as usual in US transmission lines projects. It is based on a fixed return on equity. The grantor establishes a tariff payment enough to cover all capital and operating costs incurred by the concessionaire and ensures a fixed return on equity for the concessionaire. Revisions in the tariff may occur periodically, either requested by the company or the regulator, as conditions change over time. Obviously, as an availability payment, the tariff depends on the prudence, availability and performance standards of the line.

Financial close was reached in July 2011 for total credit lines amounting \$584.5 million, for a construction plus three years maturity. The loan included main facilities, contingency facilities and letter of credit facilities and was awarded with the Project Finance "North American Transmission Deal of the Year 2011" award. Banks involved as lead arrangers of the debt included Bank of Tokyo-Mitsubishi UFJ, Deutsche Bank, Scotia Capital and Société Générale. Further syndication occurred on and after closing, involving more than 5 additional entities. Bond refinancing is likely, and will be evaluated and considered after the start of commercial operation. The total amount of equity to be injected is \$280 million.

## Relevance of Isolux experience and value provided to IFA

- Participation of Isolux as an equity member on an availability payment model.
- Successful financing in US, granted with the Project Finance “North American Transmission Deal of the Year 2011”.
- Successful completion of environmental permits with US federal agencies.
- Successful coordination with different agencies regarding crossings of pipelines, railroads and roads.
- \$325 million in equity obligations met on time according to the business plan.

## National Highway 8 (NH-8)

### INDIA

**Total investment:** \$219 million

**Concession period:** 18 years

**Construction cost:** \$184 million

**O&M yearly value:** \$0.8 million

### Members of I-69 Development Partners involved in the project:

**Equity member:** Isolux

**Lead contractor:** Corsan

**Key Personnel. Roles and Involvement:** Miguel Garrido (SPV Project Finance Lead), Carlos Ursua (Concessionaire's Technical Deputy Project Manager)

**Project Description:** After being awarded with the project, the consortium formed by Isolux (50%) and Soma (50%) executed in May 2009 the PPA for the DBFOM of the NH-8 project. The scope of work comprises design, build, finance, operation and maintenance of a 59 mile segment of National Highway No. 8 from Kishangarh to Beawar, comprising two urban sections, Kishangarh (2.4 miles) and Ajmer (3.5 miles). Tolling is the payment mechanism.

The Debt to Equity ratio for this traffic risk project is 75/25. The complete equity injection of \$54.7 million has been made by the equity members and the concessionaire has received the complete drawdown from the lenders amounting to \$164 million. A loan term of 15 years was granted by a syndicate of ten Indians banks such as the Central Bank of India, India Infrastructure Finance Company, Bank of Maharashtra and UCO Bank. This long term loan was secured on November 14, 2009, even with less than favorable global market conditions at that time.

The Design and Build joint venture, in which Corsan is the managing partner with a 50% share, signed with the concessionaire a fixed-price and fixed-date turnkey contract on a "back to back" basis. The D/B part of the works included the upgrading of a four lane existing highway to a six lane highway by adding one new lane in each direction in order to improve the capacity and safety of the highway. It also included improving the alignment and pavement rehabilitation, and It has also added longitudinal drainage along the entire highway and the construction of two lane frontage roads on both sides of the existing highway, totaling 36.5 miles.



The work included the widening, replacement or construction of a major bridge, three railroad underpasses, eight flyovers, 11 car underpasses, 26 minor bridges and numerous culverts and pedestrian underpasses. The execution of the three railroad overpasses is coordinated with the National Highways Authority of India (NHAI) and Indian Railways, who are responsible for approving the design and construction schedule, including the supervision of the construction works and railroad line temporary closures.

Construction is carried out in a different way depending on whether or not the segment of the highway has frontage road construction. In sections with frontage roads, once those are built, the main road traffic is diverted to them, which allows the construction team to widen the existing four lanes to six lanes with an additional lane and shoulder in either side of the existing highway. In segments without frontage roads, the widening from four to six lanes is first executed and the main road traffic is then diverted through this widening, allowing the construction team to execute the upgrading works of the existing section.

The construction of the highway is being completed without traffic interruption, minimizing disturbance to the existing traffic. To accomplish that, the project incorporated an extensive Traffic Management Plan with complex traffic control and staging plans, coordination of earthwork, drainage, paving and electrical and ITS infrastructure installation. All the activities related to this Traffic Management Plan (detours, road closures, schedules, night work) were coordinated with the NHAI and the Local Police of Kishangarh and Ajmer. Corsan was also advised by an expert consultant in traffic management. Besides that, Corsan implemented all the necessary measures to ensure the required safety levels during construction, Measures that included signaling, pavement marking, flags, lights and flagmen. Corsan was also responsible for the installation of fiber optic backbone and the construction of two toll plazas with a combined number of 28 toll lanes.

The construction works were started in November of 2009. Currently, the progress is above 95% and the expected date of operation is August 31, 2013. There are just a few individual items pending of completion (the toll plazas, two railroad overpasses and minor works). Almost 96.5% of the highway is available without any major encumbrances. Once the facility is open to traffic, the concessionaire will self-perform all the operations, routine maintenance and life cycle activities with the support, supervision and guidance of an Isolux skilled team.

#### **Relevance of Isolux experience and value provided to IFA**

- Long term debt secured with a syndicate of ten local banks in 2009 even with less than favorable global market conditions.
- Successful incorporation of the concession company with a highly skilled and experienced team.
- 100% of the equity obligations injected in time according to the business plan.

#### **Relevance of Corsan experience and value provided to IFA**

- Fixed-price, fixed-date turnkey contract on a back to back basis.
- Successful management of the relationship with the concession company and stakeholders on a DBFOM project
- Extension of an existing highway with an extensive Traffic Management plan
- Optimal relationships with local equipment and material suppliers.

## Perote - Banderilla Toll Highway and Xalapa Bypass (Perote Xalapa)

### MEXICO

**Total investment:** \$598 million

**Concession period:** 45 years

**Construction cost:** \$361 million

**O&M yearly value:** \$4.3 million

**Members of I-69 Development Partners  
involved in the project:**

**Equity member:** Isolux

**Lead contractor:** Corsan

**Lead firm responsible for operation and maintenance:** Isolux

**Project Description:** Perote-Xalapa is a 37 mile long greenfield project located in the state of Veracruz, Mexico. The project is composed of two 4-lane highways, the Perote – Banderilla and the Xalapa Bypass. Both segments started operations in 2012. Current AADT is around 5,000 vpd.

On February 2008, the project was awarded to a team led by Isolux, and the concession company, consisting of Isolux (50%) Ascendi (30%) and ES Concessions (20%) as equity members entered into a PPA with the Secretaría de Comunicaciones y Transportes of Mexico. The procurement process was realized under an initial fee basis. Under this mechanism, the qualification criterion is the initial concessionaire payment the proposer offers to realize.

The project represents the most modern and safe highway construction in the state of Veracruz allowing an important time saving in the connection with the capital and other regions. It started partial operations in July 2012 with the opening of the Perote – Banderilla segment and was completely opened to traffic in November 2012.

One of the particularities of this project is that the consortium reached financial close one week before the submission date, allowing the Isolux team to include a committed plan of finance in its proposal. This financial plan included an 18 year term debt, amounting to \$395 million. The lender was a syndicate of three banks: Banco Santander, Banco Mercantil del Norte, and Caja de Ahorros y Pensiones de Barcelona. The private equity injected an amount of \$203 million and was disbursed on time according to the business plan.

The D/B JV, in which Corsan was the managing partner with a 50% share, signed with the concessionaire a fixed-price and fixed-date turnkey contract on a "back to back" basis recognizing the concession company's construction obligation under the PPA.

The scope of work included the design and construction of a 19 mile four lane highway between the cities of Perote and Banderilla and a four lane bypass highway named "Xalapa Bypass" with a total length of 18 miles. Both highways have a total width of 69 feet including two lanes in each direction with a concrete barrier and lateral ditches. Both have also added longitudinal drainage along the entire highway.

The work included the execution of more than 470,000 yd<sup>3</sup> of asphalt pavement and the execution of 18 major structures, 68 minor structures and 221 drainage works. A main feature of the D/B works was the construction of a 1,120 ft long tunnel with 215 yd<sup>2</sup> of excavated cross-section using



the New Austrian Tunneling Method (NATM). This tunnel has one of the largest sections across Mexico. It is also worth mentioning the construction of two viaducts with the balanced cantilever construction method, with a cumulative length of 2100 feet.

The project also included the construction of one railroad overpass. Corsan executed this work in coordination with the railway line owner (Federal Railroad Administration) and the concessionaire operating this line (Kansas City Southern). These two entities provided Corsan with specific work schedules after the approval of the detailed design of the structures, construction methods and railroad tracks protection. Works were carried out ensuring safety and no incident occurred.

Regarding erosion control, a combined number of solutions were carried out including slope protection using 177,000 yd<sup>2</sup> of fiber shotcrete and 178,000 yd<sup>2</sup> of gunite with electro-welded mesh. Other solutions consisted of 174,000 yd of passive steel anchors 1 inch in diameter and 33 yd long and horizontal drains covered with permeable geotextile. These solutions also included the execution of a greenery plan of 373,000 yd<sup>2</sup> to prevent erosion and reconstruct the original environmental conditions.

As usually, the D/B project incorporated a Traffic Management Plan and construction was completed minimizing disturbance to the existing traffic in the affected roads. Temporary diversion works were carried out on several roads including the urban segments of the Federal Road Veracruz-Xalapa, affected by the construction of “Corral Falso” bridge, and the Federal Road 140 Veracruz-Mexico, affected by the construction of the Piedra de agua and Banderilla interchange. Corsan carried out the work always taking into account all the necessary measures to ensure safety of traffic during construction including signaling, pavement marking, flags, lights and flagmen. The works were completed with the corresponding signposts and painted road signage, other typical road markings and barriers.

Corsan was also responsible for the installation and commissioning of ITS, including variable message signs, SOS phone booths, closed circuit television systems and a Traffic Management Centre to control these ITS devices. Two toll plazas (16 toll lanes) equipped with different methods of charging tolls, each containing an administration and control building.

Operation and maintenance works are being self-performed by the concessionaire. Isolux currently employs a staff of 90 persons for these activities. Several months before the opening of the first segment, Isolux appointed an experienced and skilled management team to put in place the O&M department of the concessionaire. This management team hired the best professionals in the local market and, once the construction work was finished, they led and oversaw them in order to fulfill all the O&M needs.

Other members of the concession company team were recruited in the local market. Key positions were filled by Isolux staff to apply the company’s knowledge to the benefit of the project. A strong technical department was in charge of the supervision of the design and construction ensuring the application of best industry practices to meet the requirements of the PPA.

The concession company team has benefited from the beginning of the concession period from the support of the legal, technical and financial departments of Isolux and Isolux affiliate in Mexico.

#### **Relevance of Isolux experience and value provided to IFA**

- 100% of the equity obligations injected on time according to the business plan.
- Successful development of a DBFOM project.
- Successful incorporation of the concession company with a skilled and experienced team.

- Committed financial plan included in the proposal.
- Successful development of operation and maintenance in a project delivered under a public-private partnership with the same approach anticipated for the I-69.
- Staff for operations and maintenance positions hired amongst the local market.

### Relevance of Corsan experience and value provided to IFA

- Fixed-price, fixed-date turnkey contract on a back to back basis.
- Successful management of the relationship with the concession company and stakeholders on a DBFOM project.
- Traffic control management in the urban segments of affected roads.
- Execution of a detailed Erosion Control Management Plan.
- Optimal relationships with local equipment and material suppliers.

## CPTE (Cachoeira Paulista Transmissora de Energia)

### BRAZIL

**Total investment:** \$100 million

**Concession period:** 30 years

**Construction cost:** \$89 million

**Member of I-69 Development Partners involved in the project:**

**Equity member:** Isolux

**Key Personnel. Roles and Involvement:** Miguel Garrido (Financial manager for the bonds issuance)

**Project Description:** This design, build, finance operate and maintain project involves 112 miles of transmission lines in the state of Sao Paulo, in the southeastern region of Brazil. The PPA was executed in December 2002 with the electrical national agency from Brazil (ANEEL) and operations started on November 2004. Initially, the concession company consisted on Isolux (33%), Elecnor (33%) and Cobra (33%) In 2010, as part of a major operation, Isolux increased its share of the concession company up to 100%.

Financial close was reached in July 2004, with an initial debt to equity ratio 69%-31%. The required \$31.5 million of equity were injected on time according to the business plan.

In November 2011, Isolux achieved a \$110 million bond issuance with a repayment period for the bonds of 12 years. This financial instrument allowed to optimize the capital structure and repaid the entire existing bank loan.

Transmission lines concessions are usually availability payment type and Cachoeira Paulista is not an exception. On a monthly basis, ANEEL pays a fixed amount to the concession company (indexed to inflation). Unavailability or malfunctioning of energy supply might get a penalty depending on the period with lack of supply. During the nine years this project has been operating,



the total unavailability or malfunctioning rate is below 0.3%; three times lower than the average of the sector which is close to 1%. Serious deficiencies in the operations of the line might cause the non-disbursement of one of the monthly payments and Isolux can feel proud of having never got that kind of penalty.

### Relevance of Isolux experience and value provided to IFA

- Participation of Isolux as an equity member on an availability payment model.
- Successful issuance in 2010 of \$110 million in bonds.
- Unavailability or malfunctioning rates three times lower than the average of the sector.
- O&M in an availability payment project successfully developed for since 2004.

## High-Speed Railroad Line. Segment: Tolosa-Hernialde

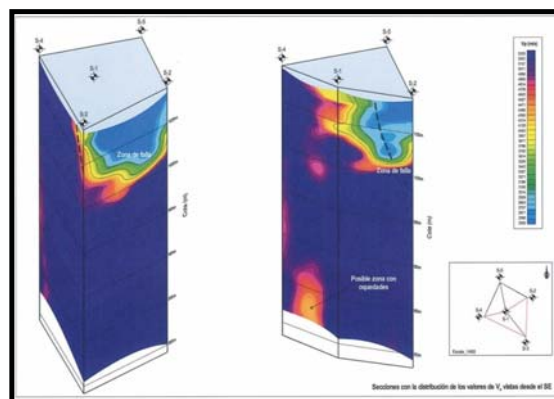
### SPAIN

**Construction cost:** \$116 million

**Construction Period:** 2010 - 2014

**Members of I-69 Development Partners involved in the project:**

**Lead Contractor:** Corsan



**Project Description:** The project consists of the construction of a 2.4 mile International Union of Railways (UIC)-width double-track segment of the new High Speed Rail (HSR) line in the Basque Country, Spain. The segment connects Tolosa and Hernialde (Guipúzcoa). Corsan is the managing partner of the construction joint venture with a 90% share,

The project scope includes the construction of five tunnels with a cumulative length of 1.65 miles. Montezkue is the largest one being 0.92 miles long. Tunnels are being built using the New Austrian Tunneling Method (NATM). The project also includes the construction of almost two miles of viaducts, the longest being almost one mile long.

The most relevant aspect of the project is the presence of karst features throughout the segment. Cavities in the limestone bedrock have been of major concern for the structures foundation design during the construction phase due to the lack of data available in the project documents provided by the client. For that purpose, several foundation types have been researched and analyzed by Corsan's Design and Engineering Department.

The methodology for karst features includes geophysical investigation in a first step and secondly the testing of boreholes. The different needs for research and the existing limitations have led to the use of different geophysical techniques such as cross-hole tomography, electrical resistivity tomography and geo-radar. Among the cases studied, the most relevant ones are the following:

Case 1 - Abutment E-1 of the San Esteban Viaduct: During the excavation phase for the abutment footing it was found that karstification was present. The presence of vertical holes in communication with the slope below the footing level indicated that a global instability might occur. In order to investigate deeper levels susceptible to cause the slope failure, cross-hole tomography using five boreholes was the best choice to analyze the case. Once the scope of the karst features was

defined, cement injections for rock stabilization were applied to fill the cavities. Afterwards, a second cross-hole tomography survey was conducted to obtain the results of the injection treatment. Finally, an additional solution using rockbolts, wire mesh and shotcrete was applied to provide further support.

**Case 2 - Abutment E-2 of the San Esteban Viaduct:** In this case, an electrical resistivity tomography was performed in order to understand the location of the holes filled with clay, associated with fractures controlling the karst features. After some geophysical investigation, two additional boreholes were drilled to ensure that micropiles were embedded in the rock without risk of collapse. The foundation of this abutment was designed using micropiles with a range of lengths between 15 ft and 80 ft.

**Case 3 - Abutment E-2 of the Luzuriaga Viaduct:** The investigation in this abutment was carried out in the same way as for abutment E-2 of the San Esteban viaduct, using both electrical resistivity tomography and geo-radar and 5 additional boreholes. The foundation of this abutment was designed using micropiles with a range of lengths between 34.5 ft and 74 ft.

Regarding the erosion control, a combined system using a three-dimensional polymer geomesh with triple twisted galvanized wire was applied. Its main function was to control and act as a protection tool against erosion, assuring the stability of slopes.

The construction work has a progress of 73 % to date and the estimated completion date is July 2014.

#### Relevance of Corsan experience and value provided to IFA

- Presence of Karst features.
- Geophysical investigation and testing of boreholes.
- Use of different geophysical techniques: cross-hole tomography, electrical resistivity tomography and geo-radar.
- Development of different solutions to eliminate the karst problem.
- Control and protection against erosion assuring slopes stability.

### Ferrol-Vilalba Motorway. Segment: Cabreiros – Cantábrico Motorway in Vilalba

SPAIN

**Construction cost:** \$58 million

**Construction Period:** 2007 – 2010

**Members of I-69 Development Partners involved in the project:**

**Lead contractor:** Corsan

**Project Description:** The Project consisted of the construction of an 8.4 mile four lane segment of the AG-64 Ferrol-Vilalba Motorway between Cabreiros and the A-8 Cantabrico Motorway interchange located in the district of Vilalba. The



segment included two carriageways, a 6.5 ft median strip and an intermediate diamond interchange. Corsan was the managing partner of the construction JV with a 70% share,

During the execution of cuttings and embankments, potentially problematic situations mainly associated with surface runoff and groundwater erosion were detected. These situations lead to the implementation of several slope and embankment protection treatments.

It was necessary to arrange slope protection systems for managing material detachments and help the proper operation of the motorway. These systems included the placement of anchor and passive bolts and triple torsion mesh to prevent rock fragments falling into the road during the operational phase. Passive bolts of 98 and 142 inches in diameter were installed inclined in the opposite direction of the slopes and injected along its length with cement grout. These protection systems also included gunite coatings and blockwork retaining walls.

In order to protect the abutment of an underpass, Corsan executed a breakwater protection and also the channeling of the riverbed, preventing the fluvial erosion of the abutment and controlling the scouring in case of exceptional rains.

Due to danger of the instabilities associated with landslides in embankment areas, and for the integrity of the road, and to assure the safe commissioning of this segment of the road, a series of measures were implemented to ensure the stability conditions.

The lower parts of the cuttings were generally below the groundwater level, which combined with the material characteristics created bearing capacity problems. It was necessary to excavate the cuttings 20-30 inches with respect to the crest level, placement of draining material layers in the bottom of the excavation and then replacement of the top. This treatment allowed the escape of groundwater leading it to the ditches, thus preventing its migration to the graded surface and the roadbed.

In order to relieve the hydrostatic load on the slopes, adequate systems for the depletion of groundwater levels were installed. They included California drains and drainage ditches in the head and foot of the slope, as well as the construction of an earth wall.

To avoid water infiltration into the body of the embankments some measures were carried out like the placement of curbs along the roadway edges, side ditches in the foot of the embankment, waterproofing of the outer berm to the curb and waterproofing of the landslide embankment facing. This waterproofing can be alternatively made up of high density polyethylene sheet and topsoil, polypropylene sheet with geotextiles and geocell stuffed with topsoil.

To improve the strength characteristics of the body of the embankment in areas where it was evident that fracture surfaces existed that could reach the road, the solution was to have piles work as locking bolts, excavated in situ with 31.5 inches in diameter, 50 yd in length and a spacing of 15 yd on center. This solution included a flexible wall standing on the embankment spill, with a height between 10 and 15 yd made by blocks of granite, which are traditionally used in this area of Spain.

#### **Relevance of Corsan experience and value provided to IFA**

- Erosion control of the body of the embankment and the embankment slopes
- Prevent, contain or repair slope instabilities of slopes related to fluvial erosion phenomena due to surface runoff and also due to the nature of the existing soil.
- Avoid contact with water of the materials constituting the body of the filling, which may be affected by rainfall cycles.
- Improve the bearing strength of the embankment body to not affect the road capabilities.

## High-Speed Railroad Line. Segment: La Gineta - Albacete

SPAIN

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**Construction cost:** \$27 million

**Construction Period:** 2004 – 2006

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**Members of I-69 Development Partners involved in the project:**

**Lead contractor:** Corsan

**Project Description:** The project consisted of the construction of a 10 mile high speed railroad platform segment with a total width of 46 ft. It included longitudinal and transverse drainage along the entire alignment and the construction of 11 overpasses. Corsán was the sole contractor for the construction of the project.



Once Corsan was awarded with the contract, it was necessary to perform a more detailed design because there were evidences that karst features were more important than what the preliminary studies had shown.

A first assessment of the extent and the risk of these karst features was done by Corsan's Design and Engineering Department, which performed mapping of sinkholes throughout the segment. Then, due to the concern this kind of situation generates, and the potential danger of its affection to the HSR works, Corsan hired a specialized consulting firm with vast experience in the study of karst features.

The methodology for karst features included geotechnical and geological investigations to assess the potential risk of the sinkholes and karstic collapses as well as to know the consequences that could arise in future stages of the project. This analysis defined the karst conditions found along with the potential risks involved. These investigations also analyzed the evolution in time of the karst process and provided solutions in order to prevent, correct and minimize risks.

The investigation methodology included compilation of background data, integration of the data previously mapped, geophysical and geotechnical prospecting, information analysis and technical report development. This investigation showed the existence of around 100 sinkholes with 1.21 sinkholes per square mile.

The analysis included the study of the most frequent orientation of the sinkholes alignment and also the preferential orientation of the main axis of each sinkhole. Aerial photographs from three different periods (1956, 1974 and 1998) in the vicinity of the location of the sinkholes were analyzed. The photo-geological report justified a geotechnical research using different methods such as electrical tomography and geo-radar and surveys with SPT tests.

The result of the investigation indicated nine areas along the stretch with risk of collapse associated to karst features problems. The main conclusion was that karst problems appeared in segments with limestone rocks and loams. The chance of the cavities collapse was studied using different methods and models and the conclusion was that none of the holes detected during the research would affect the surface, consequently achieving a remarkable high security level even in the cases of holes with radius higher than 10 ft. Once the risk of potential collapse of the cavities was determined to be low, the evolution of karst features in these areas was estimated to be a slowly progressive process if the current hydrologic conditions remained stable.

A set of preventive measures were also implemented including waterproofing with geotextile or clay material layers to prevent water presence during large periods of time, diversion of drainage away from the karst and analysis of potential infiltration zone and cladding of channels and ditches. These preventive measures also included the use of waterproof conductions in sewage, irrigation and supply networks, the restriction of irrigation and the establishment of special monitoring and surveillance/alarm system during operating phase.

#### Relevance of Corsan experience and value provided to IFA

- Presence of Karst features.
- Aerial photographs and sinkhole mapping.
- Geophysical and Geotechnical research and testing of boreholes.
- Use of different geophysical techniques: electrical tomography, geo –radar and surveys with SPT tests.
- Determined that risk of cavities collapse was low.
- Development and implementation of different preventive measures against the evolution of karst features.

## D4 I-595 Corridor Roadway Improvements – Roadway & Structural Design

### FLORIDA, USA

**Design cost:** \$8 million

**Construction cost:** \$100 million (Total Project Construction: \$1.3 Billion)

**Construction Period:** 2009 – Ongoing

**Members of I-69 Development Partners involved in the project:**

**Lead engineering:** AZTEC

**Project Description:** The AZTEC Team performed corridor improvements on two zones of the I-595 corridor, from the I-75 Interchange to the I-95 Interchange in Broward County, Florida. The project extended from the I-75/Sawgrass Expressway interchange to the I-95 interchange in central Broward County, Florida. The project consisted of 10 miles of reversible express lanes and freeway widening, interchange improvements, new bridges, utility relocations and improvements to frontage roads and crossroads and will result in improved mobility and reduced traffic congestion on Broward County's only east/west freeway. It also included the reconstruction, addition of auxiliary lanes and resurfacing of the I-595 mainline, and a new reversible express lanes system in the I-595 median.

Highlights of the improvements included: tolled reversible ground-level express lanes, improvements for the I-595/Florida Turnpike interchange, operational improvements including auxiliary lanes, continuous connection of SR 84 between Davie Road and SR 7, sound barriers, and implementation of the Bus Rapid Transit within the I-595 corridor. As part of this \$1.3 billion project, AZTEC, designed segments (Zone 1, 2, 3, and 6) of the project. AZTEC's effort led to a successful conclusion in the highway design and plans production on Section 1 and Section 2 of the I-595 reversible lanes project. The AZTEC Team was under contract to AECOM who was the



overall project design coordinator for the P3 Concessionaire, ACS/Dragados. The AZTEC design contract value was \$8 Million.

Regarding MOT, AZTEC was responsible for the final design of Segments 1 & 2 beginning at the I-595 & I-75 System Interchange (Sawgrass TI) that included new bridge structures, urban freeway reconstruction with braided ramps, frontage roads with Texas U-turns, and major cross road improvements over an existing canal immediately adjacent to the existing freeway. AZTEC developed a phasing strategy to maintain the existing number of traffic lanes during all phases of construction, maintaining access to all existing traffic interchanges (TI's) during construction of braided ramps, minimizing additional costs of temporary throw-away pavement, narrowing lane and shoulder widths, and use of temporary collector distributor roads (CD Roads) during construction. AZTEC- was also tasked with providing solutions to maintain freeway-freeway traffic connections at the Sawgrass system interchange a major north-south corridor for commuter traffic between Miami and Fort Lauderdale. With major improvements to the system interchange and replacement of all existing sign structures, AZTEC developed innovative signing strategies using a combination of static and variable message ground mount and overhead guide signs during all phases of construction. The guide sign strategy was vital to providing guidance for motorists to navigate complex safe and efficient through major urban freeway work zones. AZTEC was successful meeting the challenge to maintain access to adjacent residential and commercial developments and extensive coordination with the adjacent freeway construction.

In regards to erosion and sedimentation control, the project was adjacent to a canal flowed from the Everglades through to Fort Lauderdale. Therefore, maintaining positive control of stormwater during construction was critical for water quality, The designers developed an extensive system of erosion prevention measures involving sedimentation basins, filter fabric fencing, berms and segment logs to prevent any adverse discharge into the drainage system and canal. To protect slopes, AZTEC designed slope contouring, mini-benching and drainage swales and ditches to control run-off and erosion. This was critical, especially during the summer when large amounts of rain were produced associated with thunderstorms common to South Florida,

**Relevance of AZTEC experience and value provided to IFA**

- Design for a major US DBFOM project.
- Design of a phasing strategy to maintain the existing traffic in major urban freeway work zones.
- Design of an extensive system of erosion prevention and sedimentation control measures.

**Interstate 10/State Route 303, Traffic Interchange**

ARIZONA, USA

**Design cost:** \$ 13.8 million

**Construction cost:** \$168 million

**Construction Period:** 2009-2013

**Members of I-69 Development Partners involved in the project:**

**Lead engineering:** AZTEC



**Project Description:** AZTEC was selected as prime design consultant for this phased traffic interchange project. It is the first of two phases and laid the groundwork for the Valley's largest System Traffic Interchange (TI) with a unique, five-level configuration of fully-directional ramps, and an embedded one-way frontage road network to serve the arterial street system surrounding the TI. The primary goal of the Phase I TI is to serve the immediate needs of the traveling public by providing directional connectivity between I-10 and SR 303L to the north, finishing a vital segment of I-10 upgrades and providing local access to Citrus Road, Cotton Lane, Sarival Avenue, McDowell Road and Thomas Road. This project also provides regional and local drainage facilities, relocates existing utilities and provides related infrastructure that will serve the ultimate TI and future SR 303L improvements. AZTEC designed the realignment to widen I-10 to its ultimate width between Citrus Road and Sarival Avenue, completing the connection of the I-10 widening projects east and west of the TI. Half-diamond TIs are planned for the west side of Citrus Road and the east side of Sarival Avenue to preserve local access and provide connections to the eastbound and westbound frontage roads that access Cotton Lane. A half-diamond TI on the north side of Thomas Road will connect the northbound and southbound frontage roads with McDowell Road and Cotton Lane south of the TI. Other key project features include: 14 bridges, crossroad improvements at Citrus Road, Sarival Avenue, Thomas Road, and McDowell Road, an on-site drainage system, a regionally significant off-site drainage system, traffic operations infrastructure and major utility relocations.

The maintenance of traffic during construction was a major component of the design in this project. The scope of work for the I-10/SR303L System Traffic Interchange required maintaining three lanes of Interstate 10 in each direction during the construction of the five level interchange. To provide the contractor with access and a traffic free area, AZTEC realigned the interstate to the north so that traffic remained of the existing eastbound and westbound interstate until the new westbound lanes were constructed. The next stage of construction then shifted the eastbound and westbound traffic to the new westbound lanes so that the contractor had a traffic free working area to complete the southern half of the interstate. A detour was also used to maintain traffic on a local street in lieu of having the contractor work over traffic.

The design scope of work also required the designers to produce an extensive set of Erosion Control Plans using guidelines and standard details developed by the State. Sediment logs were used for check dams at ditches and around storm drains, berms and different sizes of sediment wattles for slope protection, rock mulch or riprap for inlet and outlet protection as well as wash outs, and different seeding mixtures. All this information was shown on plan sheets for the entire project and then quantified in summary sheets.

#### Relevance of AZTEC experience and value provided to IFA

- Design of the maintenance of traffic during construction in an urban freeway.
- Design of an extensive set of Erosion Control Plans.

#### Experience Developing Availability Payment Concessions

Besides the 12 projects included in response to point 1.7, it is also important to mention that Isolux has a significant experience developing availability payment concessions, mainly in power transmission lines projects. Isolux currently manages eight availability payment power transmissions lines in USA, Brazil and India. Two of these projects are included in the previous list. In 2010, Isolux sold another eight power transmission lines projects in Brazil after having operated them for several years. Isolux has also developed an availability payment transportation concession related to the high speed rail in Spain, the Albali project. The scope for this project included the

development of the control and signaling system. The A-4 expressway is another project similar to an availability payment. As a highway shadow toll project, revenues are paid by the government and depend on specific performance requirements and standards. To supplement the projects presented as Isolux experience in section 1.7, a list with Isolux relevant projects is shown in table 5.

Project	County	Type	Investment Value (\$Million)	Isolux Share	Status	Payment
<b>WETT</b>	USA	Transmission	\$830	50%	Under Construction	Availability
<b>CPTE</b>	Brazil	Transmission	\$100	100%	In Operation	Availability
<b>LXTE</b>	Brazil	Transmission	\$792	100%	In Operation	Availability
<b>LMTE</b>	Brazil	Transmission	\$621	100%	Under Construction	Availability
<b>LTTE</b>	Brazil	Transmission	\$168	100%	Under Construction	Availability
<b>IENNE</b>	Brazil	Transmission	\$293	50%	In Operation	Availability
<b>JTE</b>	Brazil	Transmission	\$173	33%	In Operation	Availability
<b>Uttar Pradesh</b>	India	Transmission	\$925	74%	Under Construction	Availability
<b>Albali</b>	Spain	High Speed rail	\$181	7.5%	In Operation	Availability
<b>Via Bahia</b>	Brazil	Road	\$1,630	70%	In Operation/ Under Construction	Toll
<b>NH-1</b>	India	Road	\$757	61%	In Operation/ Under Construction	Toll
<b>NH-2</b>	India	Road	\$566	50%	In Operation/ Under Construction	Toll
<b>NH-6</b>	India	Road	\$405	50%	Under Construction	Toll
<b>NH-8</b>	India	Road	\$219	50%	Under Construction	Toll
<b>A-4</b>	Spain	Road	\$132	51%	In Operation	Shadow Toll
<b>Monterrey Saltillo</b>	Mexico	Road	\$350	100%	In Operation	Toll
<b>Perote Xalapa</b>	Mexico	Road	\$598	50%	In Operation	Toll
<b>Sol Orchard Imperial 1</b>	California (US)	Photovoltaic Field	\$75	100%	Under construction	Energy selling
<b>San German</b>	Puerto Rico (US)	Photovoltaic Field	\$70	100%	Negotiating financial close	Energy selling


**Table 5: Isolux Availability Payments, DBFOM Transportation and other Concession Projects in the US**

## 1.8. Project Information-Forms D and E

# FORM D

## PROJECT

### INFORMATION

Project Name and Contract Number	Owner Information(1)	Project Description	Dates Work Performed	Construction Value and Financing Value(2)	Annual O&M Value(3)	Project Role, Description and Amount of Work Performed(4)	Project Outcome or Current Status (5) 
Madrid Ocaña A-4 Expressway. Contract Number: AO-E-192	Spanish Ministry of Public Works (Ministerio de Fomento) Josefa Valcarcel 11, Madrid, (Spain) D. Enrique Arredondo Email: earedondo@fomento.es p. (+34) 91 321 51 00 f. (+34) 91 321 51 00	19-year shadow toll highway concession of a 42 miles brownfield project near to Madrid (Spain) Construction works consisted of reconstructing and modernizing the existing highway. DBFOM project	- PPA: 27th December 2007 - Financial close: 26 <sup>th</sup> June 2008 - Operational date: 27 <sup>th</sup> December 2007	Construction value: \$113 million Financing value: \$132.4 million	\$4.6 million	Equity member (Isolux): 51.25% Design Build (Corsan): 50% Lead firm responsible for O&M (Isolux): 51.25%	Construction work performed: 100% Project in operation.
Monterrey – Satlillo Toll Highway and Satlillo Northwest Bypass Procurement number: 00009076-003-05	SCT (Secretaría de Comunicaciones y Transportes) Insurgentes Sur 1089, Piso 11 Col. Nochebuena 03720 México, Distrito Federal Fernando Palma Soto Email: fpalmaso@sct.gob.mx p. (52) 55 54824200 f. (52) 55 54824200	45-year toll road concession of a 59 miles greenfield project in northern Mexico. Construction works consisted of building one 4 lanes highway and one 2 lanes road. DBFOM project	- PPA: 17 <sup>th</sup> November 2006 - Financial close: 29 <sup>th</sup> March 2007 - Operational dates: Monterrey – Satlillo Toll Highway. 1 <sup>st</sup> November 2009 Satlillo Northwest Bypass: November 2012	Construction value: \$286 million Financing value: \$349.5 million	\$4.5 million	Equity member (Isolux): 100% Design Build (Corsan): 100% Lead firm responsible for O&M (Isolux): 100%	Construction work performed: 100% Project in operation.
Viabahia Concession Contract number: 001/2008	ANTT (Agencia Nacional de Transportes Terrestres) SBN Quadra 02, Bloco "C", 8º Andar Asa Norte 70.040-020 - Brasília/DF Mario Mondolfo Email: mario.mondolfo@antt.gov.br p. 55+(61) 3410-1711 f. 55+(61) 3410-1715	45-year toll road concession of a 423 miles brownfield project in Brazil. Construction works consist of widening different sections of the roads all along the concession period. DBFOM project	- PPA: September 2009 - Financial close: 30 <sup>th</sup> December 2010 - Operational date: 7 <sup>th</sup> December 2010	Construction value: \$1.59 billion Financing value: \$1.63 billion	\$41.6 million	Equity member (Isolux): 70% Design Build (Corsan): 70% Lead firm responsible for O&M (Isolux): 70%	Construction work performed: 30% Project in operation and under construction.
National Highway-8 Kishangarth - Beawar There is no number assigned to the CA	National Highways Authority of India G-5 & G-6, Sector – 10, Dwarka, New Delhi – 110075 Mr L. P. Padhy Email: lppadhy@nhai.org p. +91 11 25074100(Extn. 1412) f. +91 11 25074100/200 (Extn. 2457)	18-year toll road concession of a 58 miles brownfield project in the Northwest region of India. Construction works consist of upgrading a two lane existing highway to a six lane highway by adding two new lanes per direction DBFOM project	- PPA: 18 <sup>th</sup> May 2008 - Financial close: 14 <sup>th</sup> November 2009 - Expected operational date: third quarter of 2013	Construction value: \$184 million Financing value: \$218.7 million	\$0.9 million	Equity member (Isolux): 50% Design Build (Corsan): 50% Lead firm responsible for O&M (Isolux): 50%	Construction work performed: 94.33% Project under construction. Per the concession agreement the highway was schedule to open in May 2012. The delay is due the owner (NHAI) delay providing the ROW.
Wind Energy Transmission Texas (WETT) CCN 30192	Public Utility Comission of Texas; www.puc.texas.gov (All information is public on web, there is not a specific contact person at PUC)	375 miles transmission and six substations project in Texas, USA. DBFOM project	- PPA: 30 <sup>th</sup> March 2009 - Financial close: 28 <sup>th</sup> July, 2011 - Expected operational date: third quarter of 2013	Construction value: \$670 million Financing value: \$830 million	\$6.9 million	Equity member (Isolux): 50%	Construction work performed: 85% (as of 1 May 2013) Project under construction

Perote - Banderilla Toll Highway and Xalapa Bypass Procurement number: Not apply	SCT (Secretaría de Comunicaciones y Transportes) Insurgentes Sur 1089, Piso 11 Col. Nochebuena 03720 México, Distrito Federal Fernando Palma Soto Email: fpalmaso@sct.gob.mx p. (52) 55 54824200 f. (52) 55 54824200	45 years toll highway concession of a 37 miles greenfield project in the state of Veracruz, Mexico. Construction works consisted of building one 4 lanes highway DBFOM project	- PPA: 14 <sup>th</sup> February 2008 - Financial close 8 <sup>th</sup> February 2008 - Operational dates: Perote – Banderilla Toll Highway: 3 <sup>rd</sup> July 2012 Xalapa Bypass: 27 <sup>th</sup> November 2012	Construction value: \$361 million Financing value: \$598 million	\$4.3 million	Equity member (Isolux): 50% Design Build (Corsan): 50% Lead firm responsible for O&M (Isolux): 50%	Construction work performed: 100% Project in operation.
CPTe – Cachoeira Paulista	ANEEL (Brazilian Electricity Regulatory Agency) Setor de Grandes Areas Isoladas Norte (SGAN), quadra 603, módulo I - J. To andar 70830-030, Brasília – DF Brazil	30-year transmission line concession of a 112 miles project in the state of Sao Paulo, Brazil. DBFOM project	- PPA: 20th December 2004 - Financial close: July 2004 - Operational date: 28 <sup>th</sup> November 2004 - Bond emission: 11th November 2011	Construction value: \$89 million Financing value: \$100.5 million	\$3 million	Equity member (Isolux): 100% Lead firm responsible for O&M (Isolux): 100%	Construction work performed: 100% Project in operation.
High Speed Railroad Line. Segment: Tolosa – Hernialde. Contract number: C01/010/2010	ADIF (Administrador de Infraestructuras Ferroviarias) C/ Titán nº 4, CP: 28047 Madrid, (Spain) Contact: Luis Miguel Castillo Fuentes Phone: +34 94 657 26 00 e-mail: komunikazioa@ets-rfv.es	2.4 mile UIC-width double-track segment of the new HSR line in the Basque Country, Spain.	- Beginning date: 16 <sup>th</sup> December 2010 - Expected completion date: 28 <sup>th</sup> July 2014	Construction value: \$116 million	N/A	Lead Contractor (Corsan): 90%	Construction work performed: 73% Project under construction.
Ferrol-Vialba Motorway. Segment: Cabreiros – Cantabrico Motorway in Vilalba Contract number: PTOV060101	Entidad Pública de Invetimentos (Xunta de Galicia) Pg/ Fontinas. P/I Europa, 10 – A 5ª 157703 Santiago de Compostela, A Coruña (Spain) Contact: Jose Antonio Ruiz de Balbuen Phone : +34981545013 senlco@hotmail.com	8.4 mile four lane highway project in Galicia, Spain.	- Beginning date: 14 <sup>th</sup> September 2007 - Completion date: 16 <sup>th</sup> February 2010	Construction value: \$58 million	N/A	Lead Contractor (Corsan): 70%	Construction work performed: 100%
High Speed Railroad Line. Segment: La Gineta – Albacete Contract number: ON 009/04	ADIF (Administrador de Infraestructuras Ferroviarias) C/ Titán nº 4, CP: 28047 Madrid, (Spain) Contact: Jose Antonio Lara Gutierrez +34 626124933 e-mail: joseantonio.lara@ineco.es	10 mile high speed railway project in Albacete, Spain.	- Beginning date: 9 <sup>th</sup> August 2004 - Completion date: 9 <sup>th</sup> April 2006	Construction value: \$27million	N/A	Lead Contractor (Corsan): 100%	Construction work performed: 100%
D4 I-595 Corridor Roadway Improvements – Roadway & Structural Design (P3) Contract No: Financial Project ID: 420809-3-52-01 Broward County: (86095) State Road NO. 862 (I-595)	Owner: FDOT (District IV) 3400 West Commercial Boulevard Fort Lauderdale, Florida 33309 Contact: Paul Lampley Phone: (954) 845-9552 Fax: (954) 777-4197	The project consisted of 10 miles of reversible express lanes and freeway widening, interchange improvements, new bridges, utility relocations and improvements to frontage roads and crossroads.	2009-2013	\$100 Million (Total Project Construction: \$1.3 Billion)	N/A	The AZTEC-BHA Team were the subconsultant responsible for two zones of the I-595 corridor under contract to AECOM who was the overall project design coordinator for the PPP Concessionaire, ACS/Dragados.	Project scheduled for completion in December 2013, 3 months ahead of scheduled completion.

I-10/SR303L System Interchange Design Contract No: 303 MA 104 H7139 01C	Owner: ADOT 1611 W. Jackson St., MD EM01 Phoenix, Arizona 85007-3217  Contact: Eric Prosnier, PE Phone: (602) 712-8495 Fax: (602) 712-3038	First of two phases that laid the groundwork for the Valley's largest System TI. Has a unique, five-level configuration of fully-directional ramps, and an embedded one-way frontage road network to serve the arterial street system surrounding the TI.	2009-2013	\$168 Million	N/A	AZTEC Prime Designer responsible for: - Final Design - System TI - Service Interchanges - Frontage roads, - Mainline GP & HOV - Bridges, retaining & noise walls - Lighting, drainage, utilities	Because the low bid was \$12M below programmed amount ADOT initiated a \$10M change order to add portions of Phase 2 construction. To be completed summer 2014
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**\*Note: The increases or delays in projects with regard to the initial contract amount and construction period, if any, were due to changes in the project scope requested and approved by the final client to add additional value to the project.**

**Note: Exchange rates taken from the the Wall Street Journal as of 06/25/2013 ([http://wsj.com/mdc/public/page/2\\_3021-forex-20130625.html?mod=mdc\\_pastcalendar](http://wsj.com/mdc/public/page/2_3021-forex-20130625.html?mod=mdc_pastcalendar)):**

Euro area euro 1.3082  
India rupee 0.01676  
Mexico peso 0.0756  
Brazil real 0.4521

Notes:

- (1) For owner information, provide owner's name, address, contact name and current email address, phone and fax numbers.
- (2) Provide financing value if the entity's role involved financing
- (3) Provide operations and maintenance value if the entity's role involved operations and maintenance
- (4) Describe the work and state the percent or dollar value of the (a) design and construction work the entity performed/was responsible for (if the entity is a design-builder); (b) the construction work performed/was responsible for (if a developer or constructor); or (c) the design work performed (if the entity is a designer). For example, a member of a JV with a 30% stake in a \$200 million project would insert 30% or \$60 million; an engineer that performed \$10 million worth of work on a \$100 million project would insert 10% or \$10 million.
- (5) Identify and describe any increases in the original contract amount of the greater of \$500,000 or 5% of the original contract amount and any time extensions for completion or other deadlines/milestones and the reasons for such increases and/or time extensions.

**FORM E**

**CONCESSION AND PPP EXPERIENCE**

**EXPERIENCE OF THE EQUITY OWNERS IN CONCESSION CONTRACTS AND PUBLIC-PRIVATE PARTNERSHIPS**

COMPANY NAME	PROJECT NAME AND LOCATION	PROJECT SIZE (1), (2)	DEBT AMOUNT & GEARING (2), (3)	DATE OF FINANCIAL CLOSE	START DATES	% OF WORKS COMPLETED BY May 1, 2013	LEVEL OF COMPANY'S PARTICIPATION (4)	TYPE OF CONCESSION/PPP(5)
Isolux Infrastructure Netherlands B.V.	Madrid Ocaña A-4 Expressway. Spain	\$119,400	\$84,300 (70.40% - 29.60% in bank debt)	06/26/2008	12/27/10	100%	\$18,000 : including \$11,600 in shareholders subordinated debt and \$6,400 in shareholders' equity. Company's equity over total equity \$18,000/\$35,100 (51.25%)	Shadow toll
Isolux Infrastructure Netherlands B.V.	Monterrey – Saltillo Toll Highway and Saltillo Northwest Bypass, Mexico	\$349,500	\$392,100 (65% unwrapped bonds, 15% Mexican infrastructure fund loan, 20% equity)	03/29/2007	Monterrey – Saltillo Toll Highway: 10/2009 Saltillo Northwest Bypass: 11/2012	100%	\$94,700 Company's equity over total equity \$94,700/\$94,700 (100%)	Toll concession
Isolux Infrastructure Netherlands B.V.	Viabahia Concession, Brazil	\$1,631,000	\$619,000 (38% in bank debt, 7% in equity, 55% in toll revenue)	12/30/2010	12/07/2010	60% (of Phase 1)	\$160,300 Company's equity over total equity \$160,300/\$228,900 (70%)	Toll concession
Isolux Infrastructure Netherlands B.V.	Wind Energy Transmission Texas (WETT), Texas, USA	\$830,000	\$584,500 (66% - 34% in bank credit lines)	07/28/2011	Anticipated : Third quarter 2013	85%	\$140,000 Company's equity over total equity \$140,000/\$280,000 (50%)	Availability payment
Isolux Infrastructure Netherlands B.V.	National Highway-8 Kishangarth - Beawar, India	\$218,700	\$163,900 (75% - 25% in bank debt)	11/14/2010	Anticipated : Third quarter 2013	95%	\$27,400 Company's equity over total equity \$27,400/\$54,700 (50%)	Toll concession
Isolux Infrastructure Netherlands B.V.	Perote - Banderilla Toll Highway and Xalapa Bypass. Mexico	\$597,500	\$395,000 (66% - 34%)	02/08/2008	Perote – Banderilla Toll Highway: 3 <sup>rd</sup> July 2012 Xalapa Bypass: 27 <sup>th</sup> November 2012	100%	\$101,300 Company's equity over total equity \$101,300/\$202,500 (50%)	Toll concession
Isolux Infrastructure Netherlands B.V.	CPTE – Cachoeira Paulista, Brazil	100,500	Initial: \$68,600 (69% - 31% in bank debt) After bonds emission: \$109,900 (78% - 22%)	July 2004 (Bond emission in 11/11/2011)	11/28/2004	100%	\$31,500 Company's equity over total equity \$31,500/\$31,500 (100%)	Availability payment

**NOTES:**

- Project size means the total amount of the project financed under private finance / project finance scheme (i.e., without public debt, public equity or capital grants).
- In thousands United States Dollars. Identify exchange rates of amounts in other currencies using the last (bid) exchange rate published in the Wall Street Journal as of two weeks prior to the due date for the submission of SOQs. **Exchange rates taken from the the Wall Street Journal as of 06/25/2013 ([http://wsj.com/mdc/public/page/2\\_3021-forex-20130625.html?mod=mdc\\_pastcalendar](http://wsj.com/mdc/public/page/2_3021-forex-20130625.html?mod=mdc_pastcalendar))**:  

Euro area euro	1.3082	Mexico peso	0.0756
India rupee	0.01676	Brazil real	0.4521
- Include in brackets the percentage of gearing and type of debt (bonds unwrapped or wrapped, bank debt, etc.).
- Show company's amount of equity investment in United States Dollars as a shareholder. The equity investment may take the form of either (i) shareholders' equity or (ii) shareholder subordinated debt. Please indicate separately the United States Dollar amount and percentage to which the company's equity investment bears to the total of all private shareholders' equity investments for the listed project. Specify the type of concession (toll concession, availability payment, shadow toll, or combinations of these mechanisms

## 1.10. Key Personnel

Role	Individual	Relevance experience which can add value to IFA
<b>Project Executive</b>	Jose A. Labarra (Isolux)	CEO for a US DBFOM transportation project (SH130 in Texas). Project Executive for several Isolux DBFOM transportation projects.
<b>Project Manager</b>	Jose R. Ballesteros (Isolux)	CEO for the A-4 expressway which is a very similar project to the I-69 section 5 (as shown in section 1.7). Project Manager for several procurement processes in the US (US 36 Managed Lanes for Colorado for which Isolux presented a second ranked proposal last April and Jefferson Parkway Highway in Colorado). Project manager and member of the board of directors for an availability payment project (Albali).
<b>Technical Deputy Project Manager</b>	Carlos Ursua (Isolux)	CEO for the Monterrey Saltillo project during its construction. COO for the AP-41 DBFOM project, in charge of the O&M department. Currently Technical Deputy Project Manager for two projects in India (NH-6 and NH-8) being responsible for overseeing the D/B team.
<b>Financial Deputy Project Manager</b>	Miguel Garrido (Isolux)	Financial manager for the bonds issuance for two different P3 projects (Monterrey-Salttillo and Cachoeira Paulista) Project finance lead for several P3 projects, including one in US (WETT)
<b>O&amp;M Manager</b>	Miguel Angel Barranco (Isolux)	O&M Manager for a DBFOM as Monterrey-Salttillo
<b>Construction Manager</b>	Vicente Ferrio Diaz (Corsan)	Construction Manager for several Isolux DBFOM large projects such as Monterrey-Salttillo and Via Bahia
<b>Design Manager</b>	Michael Riggs (AZTEC)	Design Manager for several D/B projects and one P3 project in the US and Design Coordinator for Canadian P3, working for both the private and the public sectors
<b>Quality Manager</b>	Luis J. de Leon (Isolux)	Quality Manager for an Isolux DBFOM project as Monterrey-Salttillo

Table 6: Key Personnel

## 1.11. Legal Information & 1.11 Prior Project Involvement (Refer to Appendix 2 at the end of Volume 1)

## 2. Approach to Development

### 2.1. General Approach the Project

**(a) Description of Proposer's general approach to advancing Project development, including how Proposer team anticipates the allocation of responsibilities amongst its team members**

Isolux has assembled a multidisciplinary team of experienced professionals with the capability and proven track record of performing all the phases of a P3 project from the procurement process, through design, construction completion and delivery, and the subsequent operation and maintenance.

Isolux and the I-69 Development Partners Team have different goals for the Project including the achievement of substantial completion for the Project by fall 2016, thereby reducing the cost and funds required to develop, design, construct, finance, operate and maintain the Project. The Team's goals also include the reduction of traffic safety problems along with easing of existing and forecasted traffic congestion, providing congestion relief on SR 37 (soon to be I-69). Strengthening the transportation network in Southwest Indiana is another main goal for the Team, through the improvement of business accessibility to labor, suppliers and markets and the improvement of personal accessibility for residents within Monroe and Morgan Counties, particularly in the areas of Bloomington and Martinsville. Another important goal is to encourage design solutions that respond to actual and anticipated environmental concerns, permits and commitments. Other important goals for our team are to provide a safe project for workers and the traveling public and to provide a high quality, durable and maintainable facility. The Team will also meet Disadvantaged Business Enterprise ("DBE") goals (Infrastructure Engineering, a DBE firm in Indiana, is already shown as a subconsultant) and provide project "on-the-job" training ("OJT") program opportunities to generate additional permanent and temporary jobs that include construction related employment.

In order to meet all the aforementioned goals the Team general approach to advancing Project development will be as follows.

- If the Proposer is selected as the Developer, Isolux will form a Special Purpose Vehicle (SPV) to become the Concession Company. The Concession Company will enter into a Public-Private Partnership Agreement (PPA) with IFA and will be its sole point of contact for the entire term of the PPA.
- The Concession Company will assume responsibility for the development, design, construction, financing, and operation and maintenance (O&M) of the Project in accordance with the terms of the PPA. Maintenance includes both routine and life cycle maintenance.
- For the final negotiation and closing of the Project's financing structure, the Concession Company personnel will be fully supported by Isolux, Isolux's financial department and the Team's legal and financial advisors.

The Concession Company will enter into a fixed-price, date certain, turnkey design and build contract (D/B Contract) with the Lead Contractor, Corsan. This date certain contract assures that the D/B works will be completed according to the schedule. The Lead Contractor will be responsible for the design and construction of the Project on a back-to-back basis with respect to the Concession Company's construction obligations under the PPA. The Lead Contractor will assume full responsibility for delivering the Project on schedule and within budget under the terms of the

PPA. This back-to-back structure of the contract will guarantee the successful development of the D/B part of the Project.

In order to increase its efficiency when building the project, Corsan will enter into construction agreements with the local contractors Gradex, Force Construction Company and E&B Paving (as well as others to be determined), for the construction of specific parts of the Project that will be determined during the RFP phase.

Corsan will also enter into a design agreement with the Lead Engineering Firm AZTEC-TYPSA, for the performance of the detailed design. AZTEC-TYPSA will enter into design agreements with local consultants, amongst them, Burgess & Niple, Christopher B. Burke and Infrastructure Engineering (as well as others to be determined), for the design of some elements of the Project that will also be determined during the RFP phase.

**(b) Overview of Proposer's general approach to the design, construction and operations and maintenance management, including quality control/quality assurance and project oversight**

**Procurement Phase:** During the procurement phase, Isolux, Corsan and AZTEC-TYPSA will work jointly at co-located office in Indianapolis as a single, integrated entity. The global coherence and excellence of the proposal will be assured by José R. Ballesteros, a highly-experienced project manager who will coordinate the work of managing the interfaces and the communication flow between the team members involved. Jose has already accomplished this role in several similar projects, including a RFP response (the US36 Managed Lanes Phase 2 in Colorado), negotiation with a public authority under an exclusivity agreement (the Jefferson Parkway project in Colorado) the A-4 Expressway in Spain, a very similar project which has been presented in Part B, Section 1.7. and an availability payment concession transportation project (a High Speed Rail project called Albali that was awarded to Isolux in 2011)

Procurement phase development activities will include:

- All the necessary studies and research to define the technical solution that will best serve IFA, INDOT and public interests, procurement requirements, all applicable laws, regulations and ordinances and best industry practices.
- Design and construction studies, led by Corsan and AZTEC-TYPSA, including additional consultants for the development of specific studies including pavement design, environmental and geotechnical investigation, and utility relocation. During this phase, special attention will be given to geotechnical issues related to karst and to erosion control/sedimentation.
- Conceptual design validation and betterments based on results of the studies performed in order to advance the conceptual design to the level needed by the D/B Team to provide the equity member with a fixed price and schedule proposal.
- Value engineering study investigating alternative technical concepts that will optimize the design and construction from a performance, schedule and cost point of view.
- Quantity development and unit price investigations with local suppliers to define an optimal cost estimate, including design and overhead costs. A baseline schedule will also be developed.

- Early involvement of Isolux O&M staff to ensure the coherence of the highway design over the life of the concession, providing an asset that will be cost effective during the proposed 35-year concession period.
- Estimation of life cycle maintenance cost will be developed by Isolux experts together with AZTEC-TYPSA. Isolux has already followed this approach in two other US projects, the US 36 Managed Lanes Phase 2 and the Jefferson Parkway in Colorado.
- Negotiate and execute all agreements that will regulate the legal relationships between the parties during the concession period to allow the Team to respond immediately upon selection and hit the ground running.

**Design & Build Phase:** Once the Project is awarded, the D/B Team will continue in their co-located facility and will immediately start developing the final design. We will take full advantage of the design-build delivery method and intend to maximize the overlap of design and construction activities wherever possible through early work packages. For example, as soon as the earthwork elements are prepared, all permits have been obtained, maintenance of traffic plans are approved and other necessary approvals are secured, Corsan will initiate construction of the earthwork package while the remaining design elements are completed. Local support to the D/B Team will strongly contribute to the respect and optimization of the schedule. The concessionaire Deputy Technical Project Manager, Carlos Ursua and his team, including a technical assistant and Isolux staff, will oversee all the D/B activities in order to ensure that the D/B team fulfill with all the requirements existing in both, the PPA and the design-build agreement. Design and build phase activities will include:

- Development of Quality Management Plan (QMP)
- Cost and schedule controls
- Document management system
- Environmental Management Plan

Special attention given to geotechnical issues related with karst and to the erosion management control during the procurement phase will be maintained in the D/B phase. The team will undertake all necessary geotechnical investigations as needed and engage any expert required, in order to deliver a work as excellent as possible. In all the phases of the Project development, the team will follow the guidelines of the Karst Memorandum of Understanding adopted by INDOT, the Indiana Department of Environmental Management (“IDEM”), the Indiana Department of Natural Resources (“IDNR”), and the United States Fish and Wildlife Services (“USFWS”).

**Operations and Maintenance Phase:** Once awarded with the Project, Isolux will appoint an experienced and skilled management team to start-up the O&M department of the Concession Company. This management team will hire the best professionals in the local market and will then lead and oversee them in order to fulfill all the O&M requirements. The Concession Company, in cooperation with Isolux internal O&M experts will develop an Operation and Maintenance Plan that will set up the process to be followed in the starting of operations. Special attention would be given to maintenance works during construction, if construction works are developed with the road already in operation. Carlos Ursua, the Deputy Technical Project Manager will be the responsible for both development of O&M activities and the overseeing of the D/B team, which will enable seamless coordination between both activities.

The interface between the routine and life cycle maintenance activities will not be a challenge, as both activities will be the responsibility of the Concession Company, and Carlos Ursua will be in

charge of both tasks. Extraordinary situations will be analyzed on a case by case basis by the Concession Company to determine if repair of the damaged item is sufficient or a new capital investment is needed. If some life cycle maintenance work is requested, the concession company will launch a transparent, fair and rigorous procurement process with the local contractors interested on performing that work. Quality and safety will be two main qualification evaluation criteria for these procurement processes.

During this phase, special attention will be given to the erosion control. Erosion is an issue that will be present for the whole concession period and surveys will be developed to regularly inspect and repair all the erosion mitigation devices put in place during the construction. Those devices will be monitored in order to know its conditions at any moment, allowing for performance of any preventive maintenance task required.

The Concession Company will inform the public about the impact of maintenance activities affecting the traffic flow through signing, newspaper notices and other print and electronic media.

**Quality Control/Quality Assurance:** The D/B Team will prepare an INDOT-approved QMP covering both design and construction activities. The QMP will include rigorous quality control procedures and processes. The Design QMP will ensure that all deliverables are thoroughly checked by qualified engineers prior to submittal while the Construction QMP will include control of submittals, preparation of work plans and construction documents, review of submittals, review of surveys and layouts, quality control of subcontracted work, notification of inspections and tests, control of received materials, and comprehensive construction inspections.

The design staff will be embedded into the construction QA/QC process. During construction, the design team will review and approve materials and construction drawings to ensure the intent of the plans and specifications is being met. Our design and construction QA/QC process, as contained in the project-specific Construction QMP includes checks and balances to ensure work is built right the first time. This includes a series of hold points for inspection prior to key construction processes occurring.

The D/B Team has identified a specific D/B Quality Manager for the design and build phase in addition to the Project Quality Manager who would be in charge of the whole project. This decision is based on the importance this team gives to the quality control and assurance during the design and the construction activities.

**Project Oversight:** The Concession Company will oversee all the D/B works. A strong technical department, led by the Deputy Technical Project Manager, will be in charge of monitoring the D/B activities, and ensuring that the D/B Team is fully compliant with all requirements of the PPA and the D/B agreement. This technical department will be supported by an independent engineering firm having specific experience in providing Construction Oversight Services.

**(c) Description of Proposer's general approach to traffic management, health and safety, permit procurement, utility relocation and adjustment services, railroad coordination, environmental protection, and public relations**

**Traffic management:** The Project will be constructed in multiple phases with detailed traffic control plans where the work zones for each phase will be clearly defined, marked and protected for workers, providing safe traffic control to commuters. Corsán and the D/B team will use an extensive Maintenance of Traffic (MOT) Plan process and procedures to ensure all closures and traffic shifts are performed to applicable INDOT traffic control requirements and standards and will, utilizing our

public information program, engage the public to advertise construction activities and advertise public alternate routes to avoid construction zones.

Corsan's highly-trained workforce brings a competent and professional traffic control staff dedicated to the safety of the traveling public. They will advertise closures and detour routes to the public prior to implementing traffic controls to enhance public awareness. The D/B Team will also avoid temporary alignments during weekend closures, and will provide clearly demarcated lane shifts and detour routes for weekend closures to minimize driver confusion.

Corsan will implement daily meetings and communications with local and state traffic officials to plan the work and discuss road closures and detours and weekly coordination meetings with the adjacent projects. Special attention will be paid by the D/B Team to the Contract 9 of I-69 Section 4 which is currently being developed by Crider & Crider. If I-69 Section 6 construction works near Martinsville begins before Section 5 completion, additional meetings with its developer or contractor will take place.

Temporary lane closures due to maintenance activities, accidents or other incidents will be communicated to the public through the Concession website, the fixed and temporary variable message signs, public information notices, local media and electronic media, as appropriate.

**Health and safety:** The D/B Team is committed to ensuring that all employees and contractors remain aware of their responsibility for the public safety and the safety of themselves and their fellow workers, with the primary objective being to complete the works with the Zero Harm Initiative in which we will apply the IFA and INDOT health and security requirements. The D/B Team is committed to be continuously improving in all matters pertaining to the protection of their employees, property, and other people from accidental harm or damage from work carried out by or on behalf of the Team and adopts a Health & Safety Plan through the application of OHSA's 18001 Health and Safety management systems as a fundamental objective within the day-to-day activities.

In order to reach this commitment, the D/B Team will comply with all legislative requirements and take all practicable steps to ensure we provide and maintain a safe place of work and safe equipment, by establishing a site specific safety plan that will address the safety of our workers and the travelling public. The D/B Team will actively promote and insist that safe work methods are practiced and will provide training and supervision as and when deemed necessary. The D/B Team will also ensure that senior managers have an understanding of Health & Safety management relative to their positions and employees and other people understand and accept their responsibility to promote a safe and healthy place of work. Best practice methods, materials and technologies in the management of health & safety will be adopted in compliance with all relevant health & safety codes of practice and standards. In cases where employees are unable to work through injury or ill health, The D/B Team will explore all avenues to encourage a safe and early return to work. Such avenues will include consultation with relevant health service providers if applicable.

The D/B Team will bring a competent and professional traffic control staff dedicated to the safety of the traveling public and will utilize temporary barriers to shield the public from construction hazards, notifying public of upcoming construction through the use of portable variable message signs (VMS) and via local media services.

**Permit Procurement:** Once the ROD is obtained, IFA and INDOT intend to advance several key preconstruction environmental permits commensurate with the state of Project development anticipating that additional major permits shall be required for the Project.

Upon award, the I-69 Development Partners Team will be responsible for continuing to advance, obtain and maintain (including preparation of permit applications) all pending permits and obtain and maintain all other necessary regulatory, environmental, building and other permits (including any permit modifications) to develop, design, construct, finance, operate and maintain the Project.

The Team responsibility will include compliance with all NEPA commitments for mitigation and monitoring as set forth in the NEPA documents and all permit conditions included in any approvals, authorizations, determinations, and conditional permits. The Team will finalize all permit applications based on its proposed design and obtain final permits from the permitting agencies, including taking responsibility for any changes in permits and permit conditions arising out of the Developer's design.

INDOT will support the Team in the coordination with environmental regulatory and permitting agencies. It is anticipated that INDOT will be the permittee on Project permits except as otherwise required by law or set forth in the PPA. As the RFP will provide further details regarding permits and allocation of responsibility for securing them, the Team will wait to accept future responsibilities.

**Utility relocation and adjustment services:** The Project Sponsors intend to initiate coordination with affected utilities during the RFP process. The I-69 Development Partners Team, however, will be responsible for coordination with utility owners, obtaining utility agreements and compliance with such utility agreements during both the RFP process, as required, and during the term of the PPA.

The Team will be responsible for performing or causing certain necessary utility relocations/adjustments to be performed in accordance with applicable standards and laws and for the costs associated with utility relocations/adjustments, except to the extent the utilities are legally responsible for such costs or IFA expressly retains such responsibilities in accordance with the PPA.

Upon issuance of a Notice to Proceed, Corsan will immediately review the status of all utility company relocation agreements. For those utility relocations that are not yet agreed to, Corsan will work closely to support IFA in writing and executing the necessary agreements. Corsan will organize regularly-scheduled meetings with the IFA and utility companies to support the execution of master utility agreements.

**Railroad coordination:** The D/B Team will be responsible for coordination with railroad companies, including reviews of the detailed design of the structures, construction methods, railroad track protection and the specific work schedules, in the locations where the Project will impact CSX and the Indiana Railroad rail lines and facilities. Corsan will implement regular meetings and communications with these railroad companies for coordination matters.

The D/B Team will be responsible for causing the necessary railroad work or protection to be performed in accordance with applicable standards and laws and for the costs associated with the railroad work or protection, except to the extent the railroad is legally responsible for such costs, as required by the PPA.

Corsan is committed to execute all the necessary work ensuring safety and complying with all the requirements and standards.

**Environmental Protection:** In order to guarantee total quality for the performance of the works the D/B Team will adopt the ISO 14001:2004 Environmental Management System.

The D/B Team will prepare an Environmental Management Plan to ensure all environmental commitments for the project are integrated into the design and construction, and that permits, commitments and investigations are adhered to, without any occupational-environmental accidents or environmental damage.

Special attention will be paid by Corsan to determine the most context-sensitive solutions and any required mitigation will be incorporated into the design. Mitigation measures will include the construction of sound walls with each stage of construction. They will also include the construction of wind barriers and wind screens to minimize the spread of dust in areas where large amounts of materials are stored. Also, temporary stockpiles of excavated materials will be watered or covered and adequate trail detours (if a trail requires closure) and advanced notice and signing prior to beginning construction will be provided.

Corsan will communicate regularly with environmental and resource agencies, city/town councils, district boards, regulatory agencies, and fire departments in securing environmental approvals, permits, and design and construction approvals to comply with the prevention of occupational and environmental risks and hazards and thereby have a decisive influence on achieving some of the main goals aims of the Project Sponsors: zero incidents, improvement in environmental performance and sustainability and reductions in environmental impact.

**Stakeholder and Public Involvement:** Public involvement is a vital component of any major project, especially when the project has an urban component. Our team believes in a no-surprises philosophy and will proactively inform and engage the I-69 Section 5 corridor communities and stakeholders. We will establish contact lists and provide updates on construction progress and upcoming traffic controls. Access to businesses will be maintained during business hours, and access to residences will also be maintained. In addition to being proactive with our public information (PI) program, we know that, to minimize the impact to all stakeholders and users, the construction of the Project needs to be completed as quickly as possible. We are committed to complete construction on or ahead of schedule, which will require close coordination with stakeholders.

Starting from notice of award, we commit to join with INDOT in speaking with one voice to provide clear, consistent information to the public. Our PI officer will create a direct link between the outreach team and the INDOT Public Information Team. This integration helps us to create an informed public while ensuring the construction works move ahead on schedule.

The team is committed to achieve a high level of stakeholder satisfaction in this project. We expect that all stakeholders (IFA, INDOT, the BMCMPPO, the City of Bloomington, Morgan County, Monroe County, the Town of Ellettsville and the City of Martinsville) will be of great support during the construction and post-construction. Our team realizes that to achieve this level of satisfaction, we will need to go above and beyond to maintain outstanding public relations. We are committed to work with all stakeholders and their third-party PI firms to ensure that an effective plan is developed and implemented. Previous experience has shown that the design-builder has a major impact on the public's perception of and feelings toward the project. Management personnel will be directly involved in communicating timely project schedule and MOT information to the public and stakeholders to minimize the impact of construction activities.

The Concession Company will be supported in this effort by a well-known, local public relations and communications company specializing in transportation design-build projects.

A communication management plan will be prepared for the Project and will include all proven means of communication and outreach programs, including:

- Corsan will organize information campaigns for advertising the construction activities. Specific announcements will be made for all lane closures, communicating alternate routes and temporary alignments. A variety of media will be used for these communications, including public information notices, local media, and temporary variable message signs.
- Innovative applications of tried-and-tested methods, such as visually compelling images for traditional media, direct mail, telephone hotline, variable message signs, and regular face-to-face meetings will be used in conjunction with online services (e.g., Facebook, Twitter, email blasts).
- By developing a robust project website, we will ensure positive public engagement and proactive media relations. The website will contain up-to-date progress and lane/ramp closure notices. Subscribers to a project e-newsletter will learn firsthand about important traffic updates. The website will also include an interactive section that will encourage public inquiries and feedback, as well as transmit project images using webcams.
- Temporary lane closures due to maintenance activities, accidents or other incidents will be communicated to the public through the Concession website, the fixed and temporary variable message signs, public information notices, and local media.

**(d) Description of Proposer's general approach to project financing, including a list of anticipated timelines and milestones to obtain financial commitments and close a major project financing**

For the development and implementation of the Project financial plan, Isolux, and its financial and legal advisors will work as a single and coordinated team. Isolux has its own project financing department formed by professionals with extensive experience in structuring and closing financing for P3 projects across the globe. Isolux has completed financing deals for eight toll road projects in Spain, Brazil, India and Mexico with an aggregate value of over \$5 billion. Through these transactions, Isolux has developed and maintained strong relationships with a wide variety of companies in the global project finance industry (e.g. commercial banks, rating agencies, monoline insurers, bond houses, life insurance companies), allowing the company to operate at the innovative forefront of the industry. As noted above, Isolux has a proven capability to raise significant capital even with the current credit availability situation.

The Proposer preliminary general approach to project financing is as follows.

While the Proposer is committed to fully explore all the possibilities existing in the financing markets, the Proposer's preferred approach would be a combination of a TIFIA loan with a PAB's issuance. Private equity investment will obviously be the third pillar of the financial plan. The Proposer believes that this structure is the most effective and will allow minimizing the amount of the availability payment required. All the recent availability payments transactions closed in the US concessions market, such as the East End Bridge, the Goethals Bridge in New York and Presidio Parkway in California, incorporate at least one of these debt instruments. If PABs and TIFIA loan are not available or the Project is not fully financeable with the sole use of these two debt instruments, other sources of fund such as bank debt and taxable bonds would be used.

Proposer preferred project financing would be therefore composed of the following instruments:

**Equity:** Isolux's 2011-2015 business plan includes the funding of its existing construction portfolio and the bidding of new projects (including this one). The plan is fully covered by the committed equity infusions of its shareholders. As mentioned in Section 1.2 Equity Member, Isolux enjoys an equity commitment of \$709 million, of which \$393 million have already been injected as of May

2013. This fact coupled with Isolux's shareholder (PSP and Grupo Isolux Corsan) commitment and support; guarantee Isolux's financial capability to carry out the responsibilities of its equity investment. A proof of this capability and its commitment with transportation projects in North America is the commitment letter submitted for an amount up to \$100 million for the US36 Managed Lanes Phase 2 project in Colorado earlier this year.

**TIFIA Loan:** Given the low-cost, long-term, subordinated nature of TIFIA financing, the Proposer intends to maximize the TIFIA loan available for the Project, assuming the letter of interest that would be submitted by IFA to the Federal Highway Administration is successful. Pursuant to MAP-21 guidelines, TIFIA loan is currently limited to a maximum of 49% of total eligible cost, instead of the previous 33%. If that 49% is reached, the financing of the Project would become much less challenging and therefore the availability payment would be minimized. Therefore, the TIFIA loan is a key issue for the project financing.

Private Activity Bonds – The Proposer understands from the RFQ that IFA is also pursuing a request for a PABs allocation for the Project. Should such an allocation be made available, the Proposer plans to fully explore issuance of PABs to fund a portion of Project costs. We believe that PABs offer a number of advantages as a funding source for the Project, as follows:

- Compatibility with TIFIA loans: PABs and TIFIA are complementary financing sources, as PAB current interest payments typically begin when the project is operational, while TIFIA's repayment profile can be structured to defer current interest payments, if needed, for an additional five years.
- Reduced risk profile compared to a toll road project: as an availability payment concession, risk for investors is considerably lower than in a traffic risk project. Indiana's AAA rating and its successful history of procuring P3 projects, such as the East End Bridge and the Indiana Toll Road, strengths this approach and are a guarantee for potential investors.
- Long-term, fixed rate financing: PABs provide a long-term source of fixed-rate funding, which is well suited for the expected 35 years life of the concession and protects the Project from both refinancing risk and interest rate risk.
- Low interest rates: PABs provide the benefits of federal, state and local tax-exempt interest instruments that result in lower interest rates when compared to taxable bonds. This will allow minimizing the amount of the availability payment.

As previously explained, if PAB's and TIFIA are not available or its available amount is not enough to finance the project, the Proposer would then use other debt instruments such as:

**Bank Debt:** The project finance bank market for infrastructure transactions is sophisticated and knowledgeable when it comes to transportation assets, and is a funding source the Proposer intends to explore. However, current bank market conditions have reduced the number of potential lenders available to fund the Project, and the lenders who remain active prefer shorter terms. The availability payment mechanism will clearly reduce banks uncertainty regarding the project, although, for the reasons presented below, the Proposer still prefers the use of PABs and TIFIA loan.

**Taxable Bonds:** Despite the lack of taxable capital markets precedents, if needed, the Proposer intends to fully explore such this type of financing given the attractiveness of rates in the taxable market.

Anticipated timelines and milestones to obtain financial commitments for the proposer preferred financing approach are presented in the table 7.

The milestones and timeline chart below details the proposed steps for reaching Financial Close:

**Financial Close is assumed to occur 20 weeks after the preferred proposer is selected**

**The milestones and timeline chart has been prepared considering the Proposer preferred financing approach**

ACTIVITY	Week #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Selection of lead underwriter (during the RFP process)																					
Preferred Proposer Selected																					
Finalize and Submit TIFIA Application and Final Documents / Receive TIFIA Approval																					
TIFIA Retains Financial Advisor																					
USDOT Credit Council Meeting Approving Negotiations																					
TIFIA Retains Legal Advisor																					
Negotiations with TIFIA																					
USDOT Credit Council Meeting Approving Terms																					
Final Documentation																					
Set TIFIA Loan Interest Rate and Close TIFIA Loan																					
Formation of the Concessionaire																					
Construction Sub-Contract Executed																					
Delivery of all Required Documentation required under PPA																					
Preferred Proposer Security delivered to IFA																					
Execution of the PPA																					
Provide Financial Close Security																					
Presentations to Rating Agencies / Receive Final Ratings																					
PABs and TIFIA Loan Documentation Development																					
Model Audit																					
Finalize Funding Documents																					
Pre-Market PABs																					
Price PABs																					
Final Model Audit																					
Financial Close																					
Construction Start Date																					

**Table 7: Financial Close**

- (e) **Description of the preferred approach to the selection of a lender or lead underwriter, as applicable. If one has already been selected by Proposer, state how the lender or lead underwriter, as applicable, was selected and why the lender or lead underwriter, as applicable, was preferred.**

The lender or lead underwriter has not yet been selected by the proposer. The proposer expects to do the selection along the procurement process, before the submission of the RFP.

If PABs (or taxable bonds) were chosen as debt instruments, the lead underwriter would be selected following these considerations:

- Expertise in bonds underwriting, especially in non-taxable bonds if PABs would be used, and knowledge of the North American bonds market.
- Experience in applying, negotiating and closing of TIFIA loans.
- Knowledge of and experience with IFA and deals in Indiana, and/or recent experience in similar deals across the country.
- Underwriting capacity of the entity. Proved distribution capabilities and active presence in the secondary market to provide liquidity.
- Experience of the professionals who will comprise the working team.

If bank debt was chosen as debt instrument, several considerations would be added, such as, expertise and knowledge in public-private partnership deals, taking special attention to availability payment mechanism deals, a well-capitalized balance sheet and willingness to commit its capital to support the financing needs of the project.

## 2.2. Relationships, Roles and Responsibilities

### 1. Roles and responsibilities

The Proposer anticipates that IFA (and or INDOT) will undertake the following roles and responsibilities:

#### (A) Technical information.

During the procurement phase, it is anticipated that INDOT will provide all the technical information available and needed for the Proposers to be able to evaluate the Project, such as the conceptual design, geotechnical and hazardous materials investigations, the status of the permits, ROW acquisition and utility investigation, pavement studies for the Project.

#### (B) ROW and utilities agreements.

During the design and construction phase it is expected that INDOT will provide the Concessionaire with the ROW needed for the development of the Project according to the schedule. Utility agreements which will be managed by Corsan are also expected to be obtained by INDOT.

#### (C) Coordination of public funding.

As stated in the RFQ, three different kind of public funds are been considered: a periodic availability payment until the term of the concession period, milestone payment during construction and a completion payment. We therefore expect IFA to undertake the coordination necessary to make such funding available to the Concessionaire, including securing the necessary appropriations.

#### (D) Coordination of TIFIA funding

We propose to seek US DOT approval for the negotiation of a TIFIA Loan. As such, we would expect IFA to coordinate with the Concessionaire to effect negotiation of the TIFIA Loan.

#### (E) Securing a PAB allocation

We understand that IFA is requesting a Private Activity Bond allocation for the Project. We would expect that IFA will provide the US DOT/FHWA all information necessary to secure this allocation.

#### (F) Coordination with Governmental Agencies and Other Key Stakeholders

As noted by IFA in the RFQ, implanting the Concession will require active communication with governmental agencies and other key stakeholders in and around the I-69 section 5 corridor. As such, we expect that IFA/INDOT will coordinate and facilitate communication between the Concessionaire and key stakeholders.

The Proposer anticipates that its own main roles and responsibilities will be:

#### (A) DBFOM of the project.

The main responsibility of the Proposer will be to design, build, finance, operate and maintain the project fulfilling all the RFP and PPA requirements.

#### (B) Coordination with local stakeholders

It will be the responsibility of the Proposer, to coordinate with key stakeholders such as the BMCMPD and the local communities, in order to deliver a project that benefits all citizens.

#### (C) Local involvement

The Proposer will make its best in order to encourage local involvement. Local communities are considered by the Proposer as a key stakeholder in the development of the Project and its involvement a guarantee of success.

#### (D) Traffic management

The Proposer will develop a sound Traffic Management Plan in order to minimize impacts to users during construction. Providing timely information to those users will be a main point of this plan.

### 2. IFA/Proposer relationship

During the RFP process, the Proposer believes that an interactive relation between IFA and the Short-listed Proposers would be the optimal approach to achieve success in the Project development. The Proposer encourages the realization of one-on-one and group meetings, either in person or by conference call.

If selected as the Preferred Proposer, Isolux will form a SPV to enter into a PPA with IFA. The Developer will become IFA's private partner for the Project and develop, design, build, finance, operate and maintain the Project in exchange for periodic availability payments, and IFA/Proposer relationship would be ruled by the PPA.

### 3. Risk Management

Our Team's approach is to evaluate the associated risks in terms of the probability of their impact to safety, environment, quality, schedule, and cost. The Team's solution to potential risk concerns is to manage and mitigate them by choosing design and construction solutions that avert problems. I-69 Development Partners commits to provide a best value proposal with the least amount of risk to IFA (and INDOT). Our team will draft a Risk Management Plan. The accompanying figure shows our systematic approach in four steps: risk identification, risk analysis/assessment, risk treatment, and monitoring of risk. During the risk identification process we will establish a "risk register", which will include all risks identified. The risk register will be updated as elements are delivered and project risks change. A more specific analysis of risks have been developed in the table below with corresponding mitigation measures that will be implemented to minimize potential impacts.

Category	Description	Ownership	Mitigation plan
Financing	Interest Rate changes between Proposal's Submission Date and Financial Close	IFA/ Concession Company	The procuring authority typically covers changes to benchmark interest rates between (i) a date that is approximately 2-3 weeks prior to the proposal submission and (ii) the date of financial close. The mechanic is typically an upward or downward adjustment in a public subsidy request or concession payment. The procuring agency and the concession company often share the risk of changes in the credit spread that is reflected in the proposal's financial plan. The proposers may build its share of this risk into its proposal. The precise rules should be set out in the RFP's instructions to Proposers.
Financing	Availability and terms of a TIFIA Loan	IFA	The potential availability of a TIFIA Loan should be determined by the time the RFP for the Concession is released. We think that shortlisted Proposers should have access to the TIFIA Joint Program Office to discuss the terms of a proposed TIFIA Loan. In case this is not possible, IFA should seek to reduce the uncertainty associated with this by providing Proposers with a term sheet agreed to with TIFIA which reflects terms appropriate for the Project financing.
Financing	Refinancing debt may be unavailable/ uneconomical	Concession Company	The Concession Company will look to achieve the longest tenor possible on its debt to minimize refinancing risk. If the project is fully financeable with TIFIA and PABs, this risk would not exist.

Category	Description	Ownership	Mitigation plan
Financing	Availability Payments Appropriation risk	Concession Company	As state and federal funds shall be subject to legislative appropriation by the State of Indiana, this is a Concession Company risk. The Proposer is aware of that but expects that it will not be the case of appropriation by the State of Indiana.
Financing	Reduction in Availability Payments	Concession Company	The Proposer will engage the best professionals and will take advantage of its own experience in order to avoid failures on meeting the objectives criteria and specific performance requirements and standards.
Worker and public safety	Maintenance of traffic	Lead Contractor	<p>The project will be constructed in multiple phases with detailed traffic controls. Work zones for each phase will be clearly defined, marked and protected for workers while providing safe traffic control to commuters. Corsan will:</p> <ul style="list-style-type: none"> <li>• Establish a site specific safety plan that will address the safety of our workers and the travelling public.</li> <li>• Engage the public utilizing our public information program to advertise construction activities and advertise public alternate routes to avoid construction zones.</li> <li>• Utilize our Maintenance of Traffic Plan process and procedures to ensure all closures and traffic shifts are performed to applicable standards.</li> <li>• Our highly-trained workforce brings a competent and professional traffic control staff dedicated to the safety of the traveling public. Our Lead Engineering firm fully understands INDOT traffic control requirements and standards.</li> </ul>
Public safety	Public awareness of construction activity	Lead Contractor/ Concession Company	Prepare a Communications Management Plan that presents a comprehensive communications program to maximize awareness for commuters, stakeholders, and businesses. Our team will ensure that commuters and the business community are fully informed of the construction progress and potential traffic shifts.
Public safety	Median/ shoulder construction	Lead Contractor	<p>Utilize temporary barrier to shield the public from construction hazards.</p> <p>Notify public of upcoming construction through the use of portable variable message signs (VMS) and via local media services. Advertise alternate routes for the public through public information notices and VMS.</p>
Public safety	Unusual temporary roadway geometry	Lead Contractor	<p>Avoid temporary alignments during weekend closures. Provide clearly demarcated lane shifts and detour routes for weekend closures to minimize driver confusion.</p> <p>Advertise closures and detour routes to the public prior to implementing traffic controls to enhance public awareness.</p>
Utility relocations	Timely relocation of utilities	INDOT/ Lead Contractor	Upon issuance of NTP, Corsan will immediately status the execution of all utility company relocation agreements. For those utility relocations that are not yet agreed to, Corsan will work closely to support IFA in writing and executing the necessary agreements. Corsan will organize regularly-scheduled meetings with the IFA to support the execution of master utility agreements.

Category	Description	Ownership	Mitigation plan
Right-of-Way acquisition	Timely acquisition of parcels	INDOT/ Lead Contractor	ROW purchase agreements and aid in INDOT's efforts to negotiate and complete the purchases of the required land. Design for the Project will be developed within the right-of-way as currently envisioned by IFA/INDOT. ROW reviews will be a regular part of the internal design review process prior to any major design submittal.
Design and construction	Geotechnical Issues, Karst.	Lead Contractor/ Lead engineering/ IFA/INDOT	IFA/INDOT is expected to provide the Proposer Team with appropriate geotechnical studies and analysis of the Project area. As needed to supplement IFA-provided geotechnical information, some experienced geotechnical engineering firm in Indiana, will be a member of the design team and will provide supplemental geotechnical analysis and engineering. As the Project is located within a karst region in the State, the design and build team will follow the guidelines of the Karst Memorandum of Understanding adopted by INDOT, the Indiana Department of Environmental Management ("IDEM"), the Indiana Department of Natural Resources ("IDNR"), and the United States Fish and Wildlife Services ("USFWS") all along the development of the project
Design and construction	Coordination of design and construction	Lead Contractor/ Lead Engineering	The interface between design and construction is a critical one. Our Design and Build Team will be co-located and act as a single, integrated unit. To insure interfaces are established, the D/B Team will: <ul style="list-style-type: none"> <li>• Designate a D/B Coordinator who will facilitate communication and collaboration across the D/B Team.</li> <li>• Conduct weekly discipline task force meetings to ensure coordination and collaboration between design and construction staff.</li> <li>• Conduct value engineering reviews of all designs to ensure constructability, compliance with cost performance, and adherence to schedule commitments.</li> </ul>
Design and construction	Quality of design and construction	Lead Contractor/ Lead Engineering	Prepare an INDOT-approved QMP covering both design and construction activities and including rigorous quality control procedures and processes. The DQMP will ensure that all deliverables will be thoroughly checked by qualified engineers prior to submittal. The CQMP will include control of submittals, preparation of work plans and construction documents, review of submittals, review of surveys and layouts, quality control of subcontracted work, notification of inspections and tests, control of received materials, and comprehensive construction inspections.

Category	Description	Ownership	Mitigation plan
Design and construction	Erosion management control	Lead Contractor/ Lead Engineering	Prepare an Erosion Management Control Plan complying with the requirements of Indiana Rule 5 (327 IAC 15-5) for storm water runoff associated with construction activity. First, Corsan will fit the project to the existing terrain and soil and then will develop an erosion and sediment control plan before land-disturbing activity begins, to follow it during construction. Corsan will retain existing vegetation on the construction site wherever possible and will minimize the extent and duration that bare soil is exposed to erosion by wind and water. Corsan will keep sediment confined to the construction site as much as possible. If possible, will divert off-site runoff away from disturbed areas. Corsan will minimize the length and steepness of slopes and will stabilize disturbed areas as soon as possible. Corsan will also keep the velocity of runoff leaving the site low and will inspect and maintain erosion control measures regularly.
Design and construction	Timely design approvals	Lead Contractor / IFA / INDOT	Corsan will facilitate both weekly task force meetings and periodic “over-the-shoulder” reviews of the plans and specifications to incorporate feedback and ensure our design is acceptable to the IFA/INDOT prior to submitting the documents for formal review. This approach will ensure there are no surprises to IFA/INDOT when they receive design packages for formal review.
Design and construction	Schedule Delay	Lead Contractor	Delivering the Project in the required timeframe requires a strong D/B Team with deep resources. Our D/B Team offers those dedicated designers and builders. We will take full advantage of the design-build delivery method and intend to maximize the overlap of design and construction activities wherever possible through early work packages. Local contractor support to the D/B Team will strongly contribute to the respect and optimization of the schedule.
Design and construction	Quality of materials	Lead Contractor	The design staff will be embedded into the construction QA/QC process. During construction, the design team will review and approve materials and construction drawings to ensure the intent of the plans and specifications is being met.
Design and construction	Meeting construction standards	Lead Contractor	Our design and construction QA/QC process, as contained in the project-specific Construction Quality Management Plan includes checks and balances to ensure work is built right the first time. This includes a series of hold points for inspection prior to key construction processes occurring.

Category	Description	Ownership	Mitigation plan
Design and Construction	Environmental issues	Lead Contractor/ IFA	<p>Prepare and Environmental Management Plan to ensure all environmental commitments for the project are integrated into the design and construction, and that permits, commitments, and investigations are adhered to. Special attention will be paid by Corsan to determine the most context-sensitive solutions. Any required mitigation will be incorporated into the design. Mitigation measures will include:</p> <ul style="list-style-type: none"> <li>• Sound walls will be constructed integral with each stage of construction.</li> <li>• Wind barriers and wind screens will be constructed to minimize the spread of dust in areas where large amounts of materials are stored.</li> <li>• Temporary stockpiles of excavated materials will be watered or covered.</li> <li>• Adequate trail detours (if a trail requires closure) and advanced notice and signing prior to beginning construction will be provided.</li> </ul>
Coordination with adjacent projects	MOT and staging overlap	Lead Contractor	<p>Corsan will implement weekly coordination meetings with the adjacent projects. Special attention will be paid by Corsan to the contract 9 of Section 4 which is currently being developed by Crider &amp; Crider. If I-69 Section 6 construction works near Martinsville take off before the Section 5 completion, additional meetings with its developer will take place.</p> <p>A process will be developed to optimize lane closure requirements to insure both projects' success.</p>
ITS system	Install of ITS equipment	Concession Company/ Lead Contractor	<p>Isolux has constructed, tested, and commissioned ITS and in 5 highways and is currently designing the systems for 3 others. Isolux experience and know-how will be key for guaranteeing successful installation of the ITS equipment according to RFP requirements.</p>
Maintenance	Maintenance cost higher than expected	Concession Company and Lead Firm Responsible for O&M	<p>Isolux has extensive experience managing maintenance risk. Isolux is currently maintaining the 5 highways projects and has significant global experience regarding market prices. As Isolux will be both the only equity member and responsible for O&amp;M, this risk will be 100% his.</p>
O&M	Erosion management control	Concession Company	<p>Surveys will be developed regularly inspecting all the erosion mitigation devices put in place during the construction. Those devices will be monitored in order to know its conditions at any moment, allowing for performing any preventive maintenance task required.</p>
Maintenance and Operation	Interface between routine maintenance and life cycle maintenance	Concession Company and Lead Firm Responsible for O&M	<p>In the P3 projects, a strong coordination between the maintenance firm, the operations firm and the Concession Company (who will be directly responsible for major maintenance) is always needed. In that case, as Isolux will be performing all these roles, the coordination will be obviously unbeatable. Extraordinary situations will be analyzed on a case by case basis by Isolux to determine if repair of the damaged item is sufficient or a new capital investment is needed.</p>

## 2.3. Availability of Resources

(A) Isolux backlog and available resources as proposer and equity member.

Isolux has fully finished the construction of and is currently operating three highways, four transmission lines and four photovoltaic plants. Isolux's shares in another eight transmission lines concession projects in Brazil was sold in 2010. Status for the remaining projects is presented in the table below. As shown in table 8, most of these projects will be completed by the expected date of the Proposer selection, May 2014, allowing Isolux to successfully develop and execute the financial plan for the Project. Besides that, Isolux has a fully dedicated transportation team for North America projects. This team has a skilled experience in procurement project. It has already submitted an unsuccessful proposal in response to Colorado US 36 Managed Lanes Phase 2 project and has been negotiating for the last two years under an exclusivity agreement the Jefferson Parkway Project (DBFOM of a 10 mile highway with a construction cost of \$204 million) This is the team which be in charge for the Project procurement and development, and will be supported by the legal, technical and financial departments of Isolux.

Project	Country	Type	Financing Status	Anticipated Completion Date
NH-1	India	Road	Closed	First quarter 2015
NH-2	India	Road	Closed	First quarter 2015
NH-6	India	Road	Closed	Fourth quarter 2013
NH-8	India	Road	Closed	Third quarter 2013
Via Bahia	Brazil	Road	Closed	(works to be developed all around the concession period)
WETT	USA	Transmission line	Closed	Third quarter 2013
LMTE	Brazil	Transmission line	Closed	Third quarter 2013
LTTE	Brazil	Transmission line	Closed	First quarter 2014
Uttar Pradesh	India	Transmission line	Close anticipated by third quarter 2013	Second quarter 2014
Sol Orchard Imperial 1	California (USA)	Photovoltaic Field	Close anticipated by July 2013	Fourth quarter 2013
San German	Puerto Rico (USA)	Photovoltaic Field	Close anticipated by fourth quarter 2013	First quarter 2014

**Table 8: Isolux current backlog in financing**

(B) Isolux backlog and available resources as lead firm responsible for operation and maintenance

As summarized in the table below, Isolux is currently performing operations and maintenance in six of its highways while the remaining two will begin operations by the end of this year. No other highway project is currently in Isolux backlog. Therefore, Isolux will be perfectly capable to send a qualified O&M management team before the start of the Project's operations. As explained

previously, O&M staff will be hired amongst local resources. Equipment and materials will also be sought from local market. Isolux has developed this approach all along their concessions projects and do not expect to have any issues.

Road	Country	Length (miles)	Number of lanes	Status	Operational Date	O&M Annual Cost
<b>Via Bahia</b>	Brazil	423	1+1/2+2	In Operation / Under Construction	12/07/2010	\$41.6m
<b>NH-1</b>	India	181	2+2/3+3	In Operation / Under Construction	05/12/2009	\$2.5m
<b>NH-2</b>	India	120	2+2/3+3	In Operation / Under Construction	09/12/2011	\$2.5m
<b>NH-6</b>	India	83	2+2	Under Construction	Anticipated third quarter 2013	\$1.2m
<b>NH-8</b>	India	58	3+3	Under Construction	Anticipated fourth quarter 2013	\$0.8m
<b>A-4</b>	Spain	40	2+2/3+3	In Operation	12/27/2007	\$4.6m
<b>Monterrey Saltillo</b>	Mexico	59	1+1/2+2	In Operation	11/01/2009	\$4.5m
<b>Perote Xalapa</b>	Mexico	37	2+2	In Operation	07/03/2012	\$4.3m

**Table 9: Isolux current backlog in O&M activities**

#### (C) Design and Build Team backlog and available resources

Corsan's strategy for the construction of the I-69 Section 5 Project is to maximize the participation of the local construction industry and minimize the self-performing work. Therefore, a number of highly skilled local subcontractors (Gradex, Force Construction and E&B Paving) have joined the Team to add up local construction resources to the construction work. Another team of local design consultants will also be engaged. These design consultants have been selected according to their skills, knowledge of the local environment and availability of resources for this project.

Each member of the I-69 Development Partners is ready to mobilize the personnel needed for the procurement phase and later phases. The best and most experienced resources of each company forming the Team will participate during the Procurement phase providing all the technical, financial and legal capabilities needed to study the Project and submit the best integrated solution. The Team may be supplemented with additional advisors and subcontractors during later stages of the process.

For the most part, these companies are all local. They have the know-how, skills and capabilities to help the Team and the Client achieve the desired results. They have extensive local resources in the area in what regards to equipment (earth moving and off-highway vehicles, asphalt and concrete plants) and personnel (design/construction), material availability and local suppliers.

In addition to this group of local contractors (see more about their companies in page 6), if we are selected as the Preferred Proposer, we will add specialty subconsultants, subcontractors and vendors to our team as necessary to ensure that our Team has the best resources available to make the project a success. It is our goal to procure these specialists locally whenever possible.

As described in previous sections of this SOQ, the Team members are fully committed to put at the disposal of the Project not only the identified Key Personnel but also other available management teams that will allow the Project to be fast-tracked.

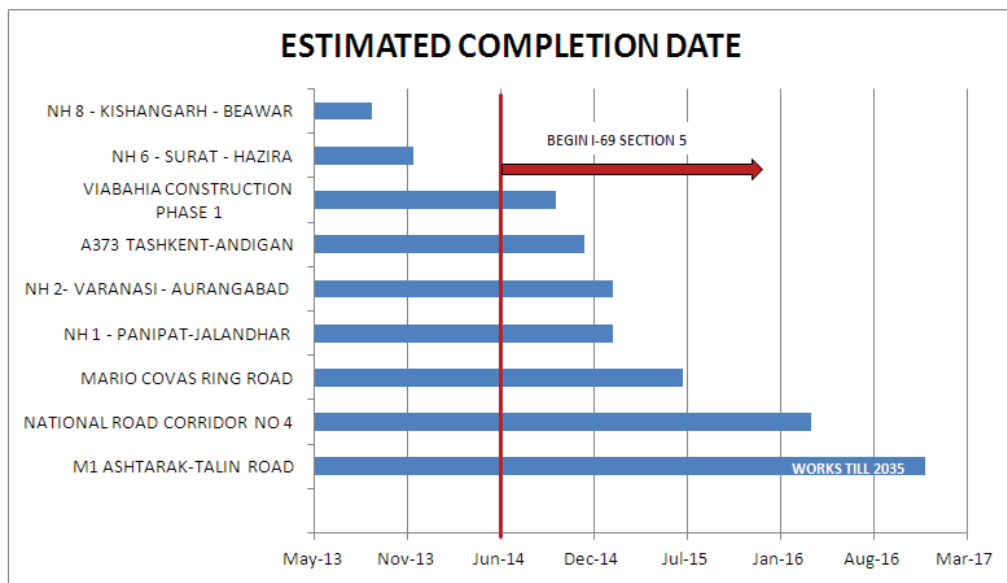
#### **Corsan backlog and available resources as lead contractor.**

Corsan is currently performing a total of \$2.6 billion international construction equating to nearly 4 years of international annual revenue portfolio. Projects with budgets in excess of \$100 million are listed on the Table 10.

Project Name	Country	Under Construction Project	Type	Total Budget (million \$)	Progress (%)	Anticipated Completion Date
NH 1 - Panipat-Jalandhar	India	Yes	Highway	634	70%	First quarter 2015
NH 8 - Kishangarh - Beawar	India	Yes	Highway	184	95%	Third quarter 2013
NH 6 - Surat - Hazira	India	Yes	Highway	338	53%	Fourth quarter 2013
NH 2- Varanasi - Aurangabad	India	Yes	Highway	501	9%	First quarter 2015
A373 Tashkent-Andigan	Uzbekistan	Yes	Highway	146	2%	Fourth quarter 2014
Mario Covas Ring Road	Brazil	Yes	Highway	385	0%	Third quarter 2015
National Road Corridor No 4	Argentina	Yes	Highway	310	8%	Second quarter 2016
M1 Ashtarak-Talin Road	Armenia	Yes	Highway	251	5%	Fourth quarter 2016
Viabahia - Phase 1	Brazil	Yes	Highway	405	20%	2035

**Table 10: Corsan current backlog in projects over \$100 million.**

As shown in the following chart, by mid-year 2014, when the I-69 section 5 Project is expected to begin, two of these nine projects will be completed and another four under construction projects will be almost completed. The ability of Corsan to draw on its talented international expertise will undoubtedly ensure a successful Project delivery, on time and within budget, as proven on its previous experiences.



### AZTEC backlog and available resources as lead engineering designer

AZTEC is currently performing \$24 million in design works in the United States of America equating to approximately one year of backlog. Projects in excess of \$2 million are listed in the table below.

Project Name	Country	Ongoing Project	Type	AZTEC Total Budget (Million \$)	Billed Executed Works (%)	Anticipated Completion Date
ADOT I-10/303 Traffic Interchange - Phoenix	USA	Yes	Roads	15	95%	Dec-14
CALTRANS Project Management – San Bernardino	USA	Yes	Roads	10	50%	Jul-14
City Of Phoenix Avenida Rio Salado Project Management, Construction Management- Phoenix	USA	Yes	Roads	8	65%	May-15
ADOT Black Mountain Blvd- Phoenix	USA	Yes	Roads	5	75%	May-14
ADOT Environmental On Call- State Of Arizona	USA	Yes	Roads	5	5%	Jan-16
FDOT Spanish River Interchange- Miami	USA	Yes	Roads	5	5%	Jul-14
ADOT Roadway On Call- State Of Arizona	USA	Yes	Roads	3	80%	Jun-14
City Of Chandler Force Main Design And Construction Management- Chandler	USA	Yes	Utilities	2	70%	Jun-14
ADOT Utility On Call- State Of Arizona	USA	Yes	Utilities	2	45%	Jun-15

Table 11: AZTEC current backlog.

By mid-year 2014 when the Project is expected to begin, five of the nine projects will be complete. AZTEC would therefore have more than enough resources to manage and perform the Lead Designer responsibilities for this Project and therefore no “staffing-up” would be required. Our model for concessionaire projects is to provide managers and specialized technical discipline leaders to augment the talents of the highly qualified local designers who have the experience working with INDOT so that there is no question that our team can and will meet the design requirements requested in a timely manner.