

Indiana Office of Energy Development

INDIANA ADVANCED NUCLEAR READY COMMUNITIES PROGRAM

TOOLKIT

A Step-by-Step Guide for Communities Pursuing
Nuclear Ready Designation in Indiana



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1. Introduction

This toolkit is designed to help Indiana communities navigate the process of becoming a designated Nuclear Ready Community.

Whether your community is just beginning to explore nuclear energy or is ready to make formal commitments, this guide provides the resources, templates, and references you need at every stage.

The toolkit is organized around the three tiers of Indiana's Nuclear Ready Community Program: Nuclear Aware (Tier 1), Nuclear Prepared (Tier 2), and Nuclear Ready (Tier 3). Each section includes action steps, resource links, and recommended educational materials.



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2. Getting Started: Building Your Team

Before beginning the formal designation process, communities should assemble a core leadership team to coordinate the effort. Recommended participants include:

- County executive or chief elected official
- City mayors or town council presidents within the county
- Local economic development director
- Regional utility representative
- Community college or university representative
- Chamber of commerce or business leader
- Public communications or media liaison

First Step: Contact the Indiana Office of Energy Development

Communities are encouraged to reach out to the OED early in the process. OED staff can provide guidance, connect you with state and federal resources, and help you develop a readiness roadmap.

► [Indiana Office of Energy Development](#) — Contact OED to express interest and request technical assistance

3. Tier 1: Nuclear Aware

Tier 1 focuses on building community understanding of nuclear energy. The primary requirement is conducting at least two public educational meetings.

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3.1 Planning Public Meetings

Your educational meetings should be accessible, well-publicized, and informative. Each meeting should cover:

- What nuclear energy is and how advanced reactors (especially SMRs) differ from older designs
- The nuclear energy ecosystem: fuel supply, construction, operations, and decommissioning
- Economic benefits for the host community: jobs, tax revenue, local spending
- What the Nuclear Ready Community designation means and what it requires
- Opportunities for public questions and feedback

Meeting Logistics Checklist

1. Select an accessible public venue (library, community center, school)
2. Provide at least 5 days public notice via local newspaper, social media, and government website
3. Invite subject matter speakers (OED staff, utility representatives, university experts)
4. Prepare sign-in sheets and distribute feedback forms
5. Record meeting agendas, attendance, and presentation materials for your application file

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3.2 Recommended Educational Videos

The following short videos are excellent resources for public meeting presentations or community website embedding. All are freely available online.

Nuclear Energy Basics

 How Nuclear Power Plants Work (~4 min)

<https://www.youtube.com/watch?v=R7WPEYGr1Vs>

Source: U.S. Department of Energy. Clear animated overview of nuclear fission, reactor operations, and electricity generation. Ideal opening for public meetings.

 Nuclear Energy Explained (Various)

<https://www.iaea.org/newscenter/nuclear-explained/energy>

Source: International Atomic Energy Agency (IAEA). Series of explainer articles and videos covering nuclear energy fundamentals, safety, and environmental impact.

 The Harnessed Atom — STEM Curriculum (Lesson plans)

<https://www.energy.gov/ne/harnessed-atom>

Source: U.S. DOE Office of Nuclear Energy. A STEM curriculum extension with lesson plans, quizzes, and activities about atoms and nuclear energy. Excellent for K–12 engagement.

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Small Modular Reactors (SMRs)

 SMR 101: What Are Small Modular Reactors? (Interactive page)

<https://www.nuscalepower.com/exploring-smrs/smr-101>

Source: NuScale Power. Comprehensive overview of SMR technology, design, safety features, and deployment. Includes infographics and video content.

 The Big Lie About Nuclear Waste (~15 min)

<https://www.youtube.com/watch?v=EhAemz1v7dQ>

Source: Cleo Abram / Huge If True (YouTube). Engaging explainer addressing nuclear waste misconceptions. Features Argonne National Laboratory researchers discussing waste recycling technologies.

Nuclear Safety

 Navigating Nuclear — Virtual Tours & Curriculum (Various)

<https://www.navigatingnuclear.com/>

Source: Nuclear Energy Institute (NEI). Virtual tours of U.S. nuclear plants, high school and middle school curriculum modules, and career exploration resources.

 IAEA Nuclear Explained Podcast (Episodes 20–40 min)

<https://www.iaea.org/podcasts>

Source: International Atomic Energy Agency. Experts discuss nuclear safety, technology, and applications in accessible language. Useful background for community leaders.

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4. Tier 2: Nuclear Prepared

Tier 2 builds on the educational foundation of Tier 1 with formal commitments from local government, site qualification, and workforce planning.

4.1 Securing Community Support

Formal support requires either government resolutions or a ballot initiative. Your application should include:

- A resolution of support adopted by the county council or county commissioners
- Companion resolutions from each city and town within the county
- Letters of support from local utilities and economic development organizations

Alternatively, a countywide ballot initiative affirming support for nuclear energy development may be submitted.

Model Resolution Elements

Your resolution should include: recognition of Indiana's energy needs and the role nuclear can play; affirmation of community support for pursuing Nuclear Ready designation; authorization for the county executive to submit the application to OED; and commitment to ongoing public education and engagement.

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4.2 Site Assessment

Identifying and qualifying a suitable development site is a critical Tier 2 requirement. Key site characteristics include:

- Adequate land area (typically 50+ acres for an SMR facility)
- Zoning that permits or can accommodate energy infrastructure
- Proximity to electric transmission lines (ideally within 5 miles of a substation or major line)
- Access to water for cooling (river, lake, or reservoir)
- Compatible surrounding land use and environmental conditions

Key Resources for Site Assessment:

- ▶ GAIN: Transitioning to Nuclear — DOE's Gateway for Accelerated Innovation in Nuclear—includes coal-to-nuclear transition guidance, siting resources, and community engagement support
- ▶ Indiana Economic Development Corporation (IEDC) — Site certification and recognition programs for energy-related development
- ▶ DOE Coal-to-Nuclear Study — Report finding 80% of retired coal sites could host advanced reactors

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4.3 Workforce Development Plan

A credible workforce plan demonstrates your community's capacity to supply the skilled labor that nuclear facilities require. Your plan should address:

- Partnerships with community colleges or universities for nuclear technician training, radiation protection, or skilled trades programs
- An assessment of the existing regional workforce: welders, electricians, pipefitters, heavy equipment operators, and other trades relevant to nuclear construction and operations
- K–12 STEM pipeline initiatives, including partnerships with local school districts
- Coordination with regional workforce development boards

Workforce Resources:

► Nuclear Energy University Program (NEUP) — DOE scholarships and fellowships for nuclear science and engineering students at two-year and four-year institutions

► NEI Navigating Nuclear Careers — Career exploration, virtual plant tours, and education resources from the Nuclear Energy Institute

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5. Tier 3: Nuclear Ready

Tier 3 represents full readiness for developer engagement. In addition to all Tier 1 and Tier 2 requirements, communities must demonstrate regulatory awareness, utility coordination, and an economic development strategy.

5.1 Regulatory and Governance Readiness

- Understand Indiana's status regarding NRC Agreement State designation and what it means for reactor licensing and oversight
- Familiarize yourself with the IURC's role in siting and permitting energy generation facilities in Indiana
- Engage with the NRC's pre-application process and Early Site Permit (ESP) framework

Regulatory Resources:

- ▶ NRC: Small Modular Reactors — NRC licensing information, design certifications, and regulatory guidance for SMRs
- ▶ IURC Overview — Indiana Utility Regulatory Commission— regulatory oversight of electric utilities in Indiana

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5.2 Utility Coordination

Nuclear facilities require robust grid interconnection and capacity planning. Your Tier 3 application should include:

- Letters or memoranda from regional utility providers documenting coordination on interconnection planning
- Evidence of transmission capacity assessment or study
- Documentation of any utility partnership agreements or memoranda of understanding for nuclear energy development

5.3 Economic Development Strategy

Your strategy should identify the economic development tools and incentive structures that will support nuclear facility development in your community:

- Tax increment financing (TIF) districts or other local incentive mechanisms
- Community benefit agreements (CBAs) with prospective developers
- State incentive programs available through IEDC
- Federal tax credits: Production Tax Credit (45Y), Investment Tax Credit (48E), and Advanced Manufacturing Production Credit (45X)

Federal Incentive Resources:

- ▶ DOE: Nuclear Energy Tax Credits — Overview of 45U, 45Y, and 48E credits applicable to nuclear energy
- ▶ GAIN: Community Engagement & DOE Funding — Open DOE funding opportunities for communities, suppliers, and developers

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6. Application Checklist

Use this checklist to ensure your application package is complete before submission to the OED.

Tier 1: Nuclear Aware

- Notice of Intent submitted to OED
- Documentation of at least two public educational meetings (agendas, sign-in sheets, presentation materials, public notice)
- Narrative statement of community interest and commitment

Tier 2: Nuclear Prepared (all of Tier 1 plus:)

- Certified copies of resolutions of support from county and municipal governments, OR official ballot initiative results
- Letters of support from local utilities and economic development entities
- Site assessment documentation: maps, zoning, IEDC certification or acknowledgment, technical reports
- Workforce development plan with institutional partnership documentation

Tier 3: Nuclear Ready (all of Tiers 1 and 2 plus:)

- Regulatory readiness narrative and correspondence with state agencies
- Utility coordination documentation (letters, MOUs, transmission assessments)
- Economic development strategy summary
- Application cover form signed by county executive

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7. Resource Directory

The following is a consolidated directory of key organizations, programs, and information sources referenced throughout this toolkit.

Organization	Resource	Website
U.S. DOE Office of Nuclear Energy	Nuclear energy programs, funding, and research	energy.gov/ne
GAIN (DOE/INL)	Community engagement, coal-to-nuclear transition, state policy	gain.inl.gov
Nuclear Regulatory Commission (NRC)	Licensing, safety regulation, SMR design certification	nrc.gov
Nuclear Energy Institute (NEI)	Fact sheets, economic data, education resources, career tools	nei.org
IAEA	Nuclear Explained series, podcasts, SMR resources	iaea.org
Nuclear Innovation Alliance	Advanced reactor economics, policy, and deployment analysis	nuclearinnovationalliance.org
Energy Communities Alliance	Community engagement best practices, new nuclear initiative	energyca.org

Indiana State Resources

Organization	Resource	Website
Indiana Office of Energy Development	Nuclear Ready Community Program, state energy policy	in.gov/oed
Indiana Utility Regulatory Commission (IURC)	Utility regulation, generation siting, rate cases	in.gov/iurc
Indiana Economic Development Corp. (IEDC)	Site certification, business incentives, data center policy	iedc.in.gov

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Educational Video & Media Quick Reference

Title	Source	Length	Best For
How Nuclear Power Plants Work	DOE	~4 min	Public meetings, basics
IAEA Nuclear Explained Series	IAEA	Various	Background, leader prep
The Harnessed Atom	DOE	Lesson plans	K–12 STEM engagement
SMR 101	NuScale Power	Interactive	SMR technology overview
The Big Lie About Nuclear Waste	Cleo Abram / YouTube	~15 min	Myth-busting, public trust
Navigating Nuclear Virtual Tours	NEI	Various	Career exploration, education
IAEA Nuclear Explained Podcast	IAEA	20–40 min episodes	Deep dives, leader education

8. Contact Information

For questions, technical assistance, or to submit a Notice of Intent:

Indiana Office of Energy Development
One North Capitol Avenue, Suite 900 Indianapolis, IN 46204
Email: Nuclear@oed.IN.gov

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Sources

The data, statistics, and claims referenced in this toolkit are drawn from the following sources:

1. Nuclear Energy Institute (NEI). Economic Benefits of Nuclear Energy studies. [nei.org/resources](https://www.nei.org/resources)
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3. Nuclear Innovation Alliance. Economics of Advanced Nuclear Energy fact sheet (2023). [nuclearinnovationalliance.org](https://www.nuclearinnovationalliance.org)
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8. Gateway for Accelerated Innovation in Nuclear (GAIN). Community engagement resources. [gain.inl.gov](https://www.gain.inl.gov)
9. Energy Communities Alliance. New Nuclear Initiative. [energyca.org](https://www.energyca.org)
10. International Atomic Energy Agency. Nuclear Explained series and SMR explainers. [iaea.org](https://www.iaea.org)
11. Texas Comptroller / UT Bureau of Business Research. Small Modular Reactors economic impact analysis (2025). [comptroller.texas.gov](https://www.comptroller.texas.gov)