



Inland Northwest Center for Energy and Decarbonization Annual Report to the National Science Foundation (NSF) April 25, 2025

Urbanova/Brian Kraft, PhD, PI

Advancing Energy and Decarbonization Technologies in the Inland Northwest (WA, ID)

Purpose and Vision:

INTENT is building a diverse regional coalition of tribal nations, public and private institutions, labs, government agencies and related organizations to identify, develop and translate technologies, develop regional capabilities, and position research and development capacity (R&D) to yield scalable solutions that engage people in the process of creating an energy future with equitable economic and societal impacts.

INTENT's vision is a society enabled by sustainable, equitable, and resilient energy systems that empower people and reduce environmental impacts. INTENT's mission is to position the Inland Northwest to solve the co-occurring social, economic, and environmental impacts of existing power grids and lead the urgent transition to clean energy in ways that lead to sustainable economic benefits. INTENT drives transformative energy initiatives that accelerate the equitable decarbonization of the regional power grid, preserve scarce natural resources and improve jobs and economic mobility for the people of the Inland Northwest. The overarching goal of the effort is to develop a nationally replicable model to scale the growth of our regional innovation engine.

A. Introduction

INTENT's development engine establishes a cross-sector collaboration among public and private universities, community colleges and K-12 educational institutions, investor-owned utilities and public utility districts, national labs, government agencies, regional workforce organizations, non-profits leading in energy equity, private training organizations, angel investment groups, intellectual property experts, and several sector-leading for-profit companies. After significant progress in the first year navigating organizational questions, refining operation rearrangement we were positioned to directly engage in project planning. We mapped a more structured community engagement process to move from the consensus direction to an action plan for our type two proposal. This involved a series of three community workshops with sequentially increasing focus on the proposal for activities going forward. The details of these sessions are outlined below. To meet 2050 carbon goals and build the new energy economy there are defined integrator and broker needs to advance research innovations in sustainable energy, accelerate partnership and investment support of innovation-focused start-ups and implementing equitable and sustainable improvements to the region's power grid. There is also growing awareness and consensus on the broad need for building an inclusive next generation regional energy workforce to support the innovation and sustainable energy ecosystem. INTENT and this NSF Engines program are focused on equitably identifying current and new evolving solutions to building a carbon-free power grid, stimulating the regional economy, developing and implementing a future-biased energy workforce, and emphasizing community engagement in the planning activities supported by this funding.

B. Executive Summary

The Inland Northwest Center for Energy and Decarbonization (INTENT) has made significant progress in establishing the foundation for success of a regional innovation engine focused on accelerating electric grid resiliency, stability and source diversification. Working groups across four work streams – Use-Inspired R&D, Industry Alignment, Workforce Growth, and Investment Effectiveness have been meeting regularly since July to chart inputs to the forthcoming comprehensive regional assessment. This assessment is widely considered the lynchpin in establishing the unique value proposition for INTENT, its data-driven metrics for success and the most pressing and most promising strategic interventions of value to the regional economy in our initial 28-county region of service in Washington and Idaho. The assessment will include an inventory of research and industry assets, innovation capacity (corporate and entrepreneurial), workforce gaps/needs, and social/environmental/economic factors affecting energy justice among other factors.



Development Award activities have pivoted significantly in this reporting period. Sifting into efforts to summarize learnings from the workshop and adapting efforts in view of the feedback from our Type-2 preproposal.

Outputs have reinforced our perspective that the Inland Northwest region, anchored by strong energy industry partners, research institutions, and community organization, has an extraordinary opportunity to develop its emerging clean energy ecosystem in ways that deliver equitable benefits to underserved communities, ensure grid reliability, and stimulate long-term economic growth.

Over the 2024, multiple workshops and stakeholder meetings have reinforced the region's alignment around five strategic focus areas listed below with the key gaps or needs for each from the SWOT assessments conducted.

- 1. Governance, Policy & Strategy Development – key gaps/needs**
 - Fragmented Regional Energy Leadership
 - Lack of Neutral Common Energy Strategy “Council”
 - Underrepresented Tribal Voices
- 2. Market Making & Demonstration – key gaps/needs**
 - Insufficient Operational Pilots and demonstrations
 - Limited and Uneven Energy Market Participation & Benefit
 - Uncertain ROI for distributed energy resources (DER)
- 3. Community Energy Resilience – key gaps/needs**
 - Rural & Tribal Vulnerability
 - Limited Funding Pathways
 - Few Operational “Resiliency Stations”
- 4. Workforce & STEM Development – key gaps/needs**
 - Aging Skilled Trades and Energy Leadership
 - Under resourced STEM
 - Uneven Alignment Between Industry & Training Providers
- 5. Investment, Innovation & Incubation (i3) – key gaps/needs**
 - Early-Stage Funding Shortage & Expected Turbulence Next 1-3 years
 - Lack a Regional Specialized Cleantech Incubator with Laboratory and Simulation Capability
 - Siloed IP & Tech Transfer

These focus areas and gaps/needs emerged through the three workshops, multiple proposal efforts, Accenture's “Competitive and Market Analysis,” engagement with partners the past two years. Each workshop built on the outputs of the prior one, with the May workshop looking at SWOT analysis and industry data and experience, the June workshop being oriented on guiding principles and identification of six key intervention areas, and the July workshop focused on building detail around the top six intervention areas for the purpose of developing the National Science Foundation (NSF) Engines preliminary proposal.

Building from these results, over this final reporting period we have formulated a revised path forward and secured funding to support these ongoing efforts. The details of which are provided herein.

C. Overview of Organization and Award Management

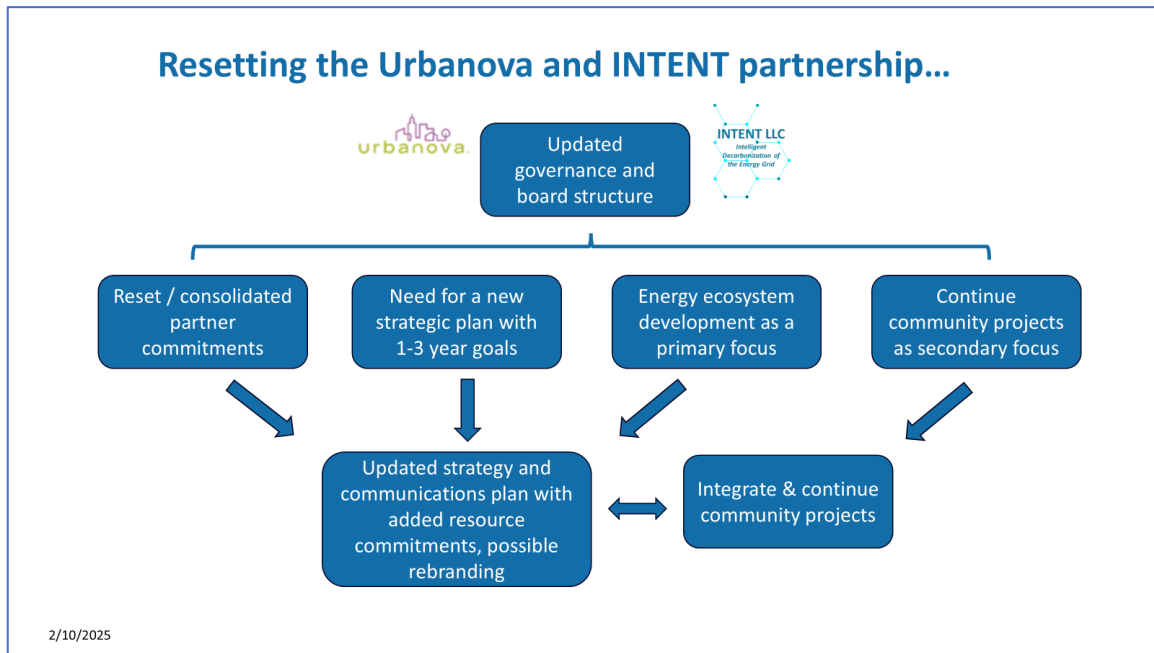
NSF Engines Development Award: Advancing energy and decarbonization technologies in the Inland Northwest (WA, ID) – ITE 2304058

Urbanova and INTENT, LLC have fundamentally come together as partners in leadership and management of the award and regional energy innovation efforts. The joint leadership teams from both organizations conducted a thorough review and assessment of the program December 2023 - January 2024 and made significant changes including change of PI to Brian Kraft, PhD, elevating INTENT LLC as a primary sub-awardee, hiring a Co-PI and PD Eric Finch under INTENT to help direct surge activities, and made a budget amendment to better direct funds to needed areas. These changes have brought significant positive change to the projects and volunteer partner efforts providing needed full-time expert resources to the program. Urbanova and INTENT have agreed to a joint board assessment committee that receives a monthly report of program activities and expenditures to review against planned progress, request updates or clarification, and assess overall performance of the program effort. This organizational structure and award management plan stayed largely intact through the proposal period, though in the terminal phase of the project discussions have shifted to focus on alterations to structure that serve to optimize long term stability in the absence of the NSF Type-2 Engines opportunity. To these ends, the core partnering organizations, [Avista Corporation](#), [Edo Energy](#), [Open Energy Solutions](#), [POWER Engineers](#), [Washington State University's Energy Systems Innovation Center](#) (ESIC), [Spokane Workforce Council](#), [Pacific Northwest National Labs](#) (PNNL) and [Greater Spokane Incorporated](#) (GSI) engaged in robust discussion and detailed planning relating to both organizational structure and funding plans.

The framework under development involves merging Urbanova and INTENT into a single, sustainable nonprofit entity focused on advancing industry-led and community-focused energy cluster (ecosystem) development. This merger aligns with the long-term strategic goals and/or direction of both organizations and their mutual commitment to regional benefit and resilience.

Summary of the Proposed Merger (efforts started in 1/2025)

- The merged entity will operate under the existing 501(c)(3) nonprofit status of Urbanova.
- The primary mission will be energy cluster development, integrating industry partnerships and community engagement.
- A six-month transition and strategic planning phase will be initiated, including governance structure refinement and operational integration.
- All assets, branding, and intellectual property will be combined, with a review process to align branding with the new strategic direction.



D. Strategic Plans

As outlined above, a re-working of the organizational strategic plan, core programmatic functions and operational management has been embedded within this merger discussion. The revised plan reflects the spirit of the initial Engines proposal revised in view of resource constraints articulated by the partnering organizations, community interests as gathered from the multiple workshops and the motivations of the committed core partners.

INTENT was initially envisioned to become an organizing force for a region that has always had strong expertise and leadership in the energy industry. Our region has been highly successful in efforts to innovate and scale to demonstration in this sector. These efforts, however, have historically been fragmented and lacked dedicated cross-project coordination. Through the workshops we validated a strong community interest in supporting continued innovation to enhance stability and decrease environmental impacts, deepened conversations across contributing organizations and have landed with a scaled plan for INTENT. True to the initial vision, the revised plan involves positioning INTENT as a membership funded organization that serves to sustain and grow conversation with the aim of identifying opportunities for collaboration and co-investment in regional energy systems. The details of this emerging plan are provided below.

I. Plans for Core Programmatic Functions/Areas

Consistent with the founding mission, INTENT, through the state of Washington, has received two months of funding from the Innovation Cluster Acceleration Program (ICAP) to assist the next stages of this proposed plan. Parallel efforts to revise organizational structure and more broadly socialize the proposed membership funded model while actively working to identify near-term collaborative R&D

opportunities. Efforts are underway to Organize 1-2-day industry-led energy cluster summit with tracks on:

- Investors, suppliers, and producers.
- Industry and educator conference on energy workforce development.
- Membership value proposition and commitments.

Through these efforts we aim to initiate initial memberships and identify initial project targets and efforts.

Short term managerial outcomes will involve the finalization of a revised structure and initial member engagements (*vide infra*). Short term technical outcomes (years 1-5) will prioritize community resilience with targeted projects such as microgrids, energy efficiency retrofits, and renewable energy installations within underserved communities. Strengthening partnerships with Tribal Nations and rural areas can promote equitable access to reliable, clean energy.

Long-term outcomes (Years 5–10 and beyond) will seek to solidify regional leadership in energy innovation growing INTENT’s reach and impact. Through sustained R&D and market implementation efforts, our cluster’s focus on grid innovation is needed for commercializing breakthrough technologies in critical fields like advanced nuclear, renewable hydrogen production, and large-scale renewables integration in collaboration with other partners and energy clusters in Washington state.

Below are immediate (12-month) priorities, **integrated** with short-term ICAP outcomes for partner expansion, with added numeric targets to assist in building a value proposition for INTENT partners and members:

1. Governance, Policy & Strategy Development (INTENT Board and Senior Team)

- **Priority 1:** Convene a formal “Regional Clean Energy Strategy Council” to unify regional energy cluster strategy with direct tribal and rural engagement.
- **Priority 2:** Finalize and adopt an “Energy Roadmap & Scorecard” clarifying near-term legislative objectives, more resilient grid development, and Integrated Resource Plan (IRP) updates incorporating demonstration support.
- **Community Engagement Target:** Add 10 new members and grow INTENT participation to 50 in the next 6 months.
- **Industry “Banding Together” Emphasis:** From the Public Utility Districts (PUD) emphasis on collaboration, “banding together on workforce, investment, and regulatory engagement” can strengthen common strategies under Governance & Policy (rather than duplicating efforts individually).

2. Market Making & Demonstration (Industry and Research)

- **Priority 1:** Launch at least two demonstration-scale microgrids or energy districts to validate DER technologies and advanced storage.

- **Priority 2:** Form a “Market Innovation Working Group” to explore real-time market signals, aggregator models, and local renewables.
- **Community Engagement Target:** Host an “Investor, Supplier, and Producer Workshop” to expand synergy for early pilot success.
- **PUD Pitch “Research Demo”:** Incorporate “Facilitate 10 real-world demonstrations by 2028” to ensure local research transitions to practical pilots in the region.

3. **Community Energy Resilience (Industry and Research)**

- **Priority 1:** Pursue near-term microgrid pilots in one rural community and one tribal community to form “resiliency stations” with on-site generation and storage.
- **Priority 2:** Map the region’s top 3–5 at-risk communities based on social vulnerability and wildfire/climate data.
- **Industry “Common Challenges”:** PUD references highlight the need for shared solutions to wildfire extremes and infrastructure vulnerabilities, which can be integrated here by aligning multiple PUD efforts in resilience planning.

4. **Workforce & STEM Development (Workforce)**

- **Priority 1:** Coordinate a “Clean Energy Career Pathways” effort with K–12, community colleges, and workforce councils.
- **Priority 2:** Launch an “Energy Apprenticeship Accelerator” bridging skilled-worker gaps.
- **Community Engagement Target:** Host an “Industry and Educator Conference” to finalize short-term workforce gap analysis.
- **PUD Pitch “Workforce Target”:** Adopt the numeric goal of increasing the local trained energy workforce by 25% by 2035, ensuring continuity of advanced skill development for the entire region.

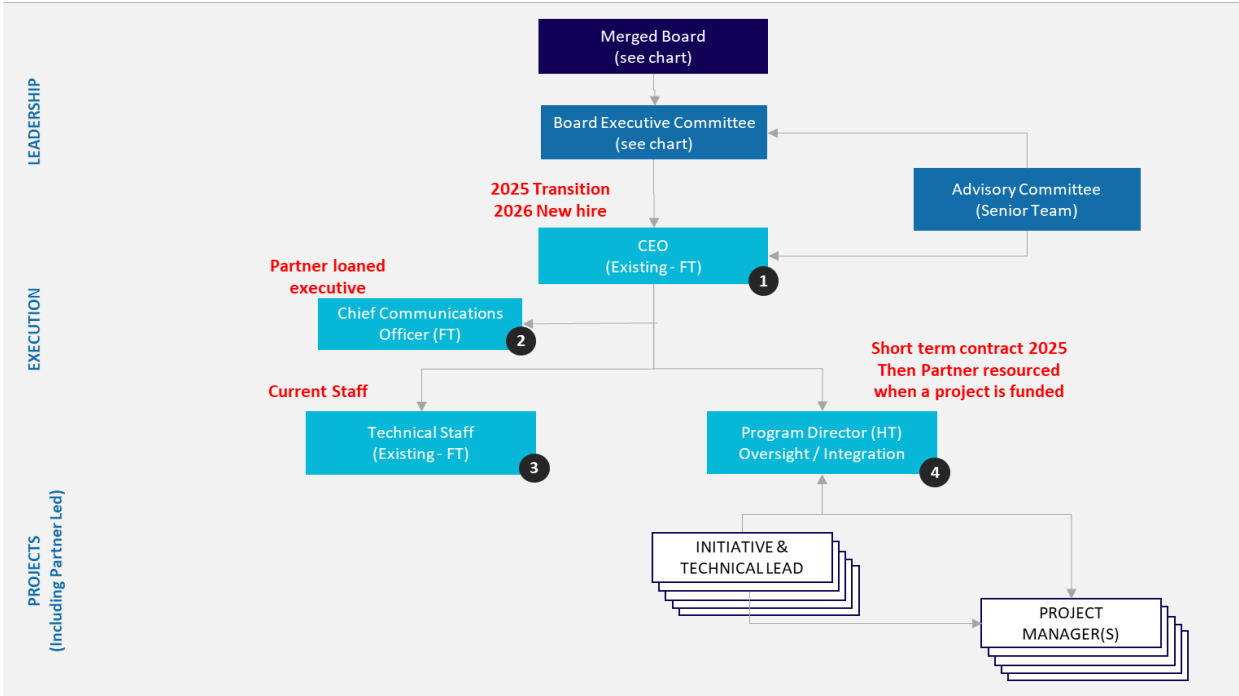
5. **Investment, Innovation & Incubation “i3” (Investment)**

- **Priority 1:** Establish or partner with a “Regional Energy Incubator” that supports cleantech, grid modernization, and electrification ventures.
- **Priority 2:** Formalize an “Energy Innovation Funders Circle” with local angels, philanthropic entities, and corporate partners to fill early-stage funding gaps.
- **Community Engagement Target:** Initiate a capital attraction campaign of \$50 million over 1–2 years, supporting 10 new energy startups.
- **PUD Pitch “Investment Goal”:** Aim to double private investment in Inland NW energy businesses by 2030, complementing the near-term \$50 million with a broader, long-term objective for scaling the entire region’s innovation pipeline.

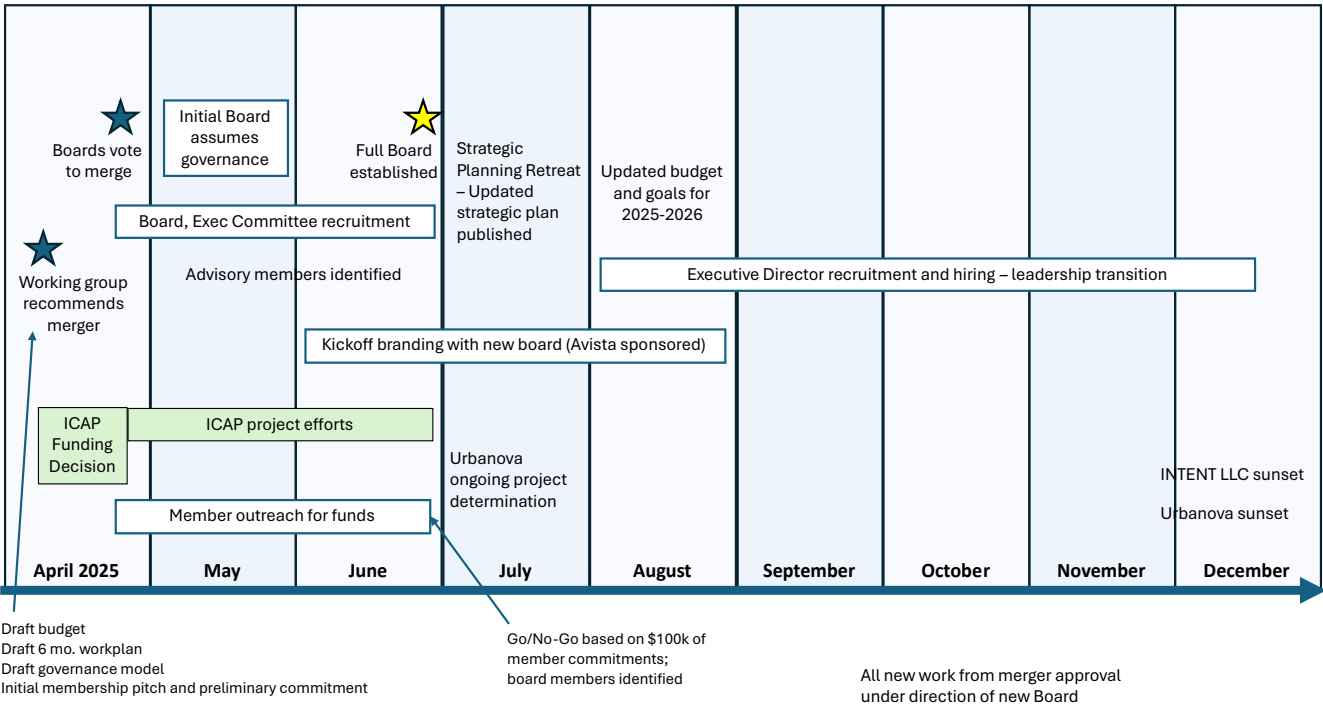
II. **Management Plan**

At this point we are in the early stages of board formation for the revised organizational structure.

Initial Merged Organizational Structure DRAFT – lean model
Operating structure with initial resources for 2025



Next steps will involve the formalization and standup of the operational organization. An outline of the proposed work is provided below:



III. Evaluation Plan

In the very near term our primary indicator is the adoption of a pay-in membership model. The sustained momentum and community engagement enabled by the NSF Engines funding has provided information and interest sufficient to support ongoing effort. While we are confident in our proposal its evaluation modality is clear, success will derive from effective and frequent communication couples with clear value added services for the member community.

IV. Long-Term Sustainability Plan

Economically, by 2035, INTENT aims to drive over \$500 million in new capital investment, create 5,000 well-paying craft, line, and engineer level jobs, and establish the region as a critical national clean energy supply chain. Community resilience initiatives ensure sustainable and affordable access, scalable model for Washington State and the nation. The plan is to create this value through sustained organizational engagement via this definable ROI.

Observations and Recommendations on Priorities for the Next 24 Months

Through September 2025 (Next 6 Months)

1. Governance, Policy & Strategy Development

- Finalize the INTENT/Urbanova merged 501.c.3 membership model and Senior Strategy team as the starting point for the above discussed “Inland NW Energy Strategy Council” with tribal/rural seats.
- Complete and publish an updated strategic plan leveraging the NSF Engines Development award efforts.
- Recruit 12 new members to for obtain 50 total organizational participants.

2. Market Making & Demonstration

- Conduct an “Investor, Supplier, and Producer Workshop”.
- Define the roadmap needed to complete “10 real-world demos by 2028” as outlined by PUD reports.
- Engage local utilities on potential DER projects and start work where viable.

3. Community Energy Resilience

- Select 2–3 high-risk communities for engagement, focusing on energy resiliency and equity. Where possible, tie that to related rebuilding or investment efforts related to past wildfire or other natural disasters to rebuild back more resiliently.

4. Workforce & STEM Development

- Leverage the INTENT workforce workgroup to evolve to a “Clean Energy Career Pathway Coalition” representing key industries, academic and training partners.

- Coordinate an “Industry and Educator Conference” for immediate workforce gap solutions.
- Incorporate the “25% workforce growth by 2035” target to shape program and training goals for the next ten years.

5. Investment, Innovation & Incubation (i3)

- Host an “Energy Funders Circle” expanded to producers and suppliers in co-operation with E8 Angels, Fuse Fund, Avista Development, and other partners that includes cyclical programming and opportunities for pitches and reverse pitches.
- Initiate a \$50M capital campaign and adopt the objective to “double private investment by 2030.”

Through September 2026 (Months 7–18)

1. Governance, Policy & Strategy Development

- Plan and host a multi-stakeholder legislative workshop on energy leveraging partnership with Element 8 Angels and their annual conference.

2. Market Making & Demonstration

- Identify aggregator/market requirements for near-term demonstration.
- Publish region-specific reliability data on cost savings and stability.
- Publish a “Market Pathway Toolkit” to replicate pilot successes.

3. Community Energy Resilience

- Partner on planning for near-term microgrids or resiliency stations.
- Develop a “Rural Resilience Finance Guide.”

4. Workforce & STEM Development

- Launch “Rural STEM Educators Initiative” for 10 rural districts.
- Implement an “Energy Apprenticeship Accelerator” to 3–5 colleges with industry informed programming and internship opportunities.
- Host annual “Energy Futures Summit,” bridging K–12, higher ed, industry.

5. Investment, Innovation & Incubation (i3)

- Leverage LaunchPad and university efforts and resources to continue a “Cleantech Incubation Hub” with utility, academic, and laboratory partners.
- Partner with E8 and other investment partners to launch the “Inland NW Energy Seed Fund” offering 5–7 seed grants.

Through September 2027 (Months 19–36)

1. Governance, Policy & Strategy Development

- Institutionalize “Inland NW Energy Strategy Council” under a 501(c)(3) or NSF engine.
- Seek interstate DER compacts.

2. Market Making & Demonstration

- Make progress toward “10 real-world demos by 2028” from the PUD engagement.
- Fund/design two new microgrid pilots partly via philanthropic or corporate means.
- Operationalize demonstration-based local energy market.
- Scale aggregator-based transactive markets to 20,000+ DER participants.

3. Community Energy Resilience

- Complete 2–3 “Resiliency Stations” with solar, battery, black-start.
- Standardize microgrid design to enable more deployments to rural/tribal systems.
- Achieve “Resilience Ready” for the State-assessment most high-risk areas.

4. Workforce & STEM Development

- Graduate 1,000 new professionals in advanced energy systems.
- Adopt integrated K–12 “Energy & Environment” curricula in 50% of rural districts.

5. Investment, Innovation & Incubation (i3)

- Operationalize an investible Energy Incubation Hub for new ventures.
- Attract \$50M in private capital.

Other INTENT Observations and Recommendations

Value Proposition Analysis

All major partners—Washington State, Idaho State, PNNL, INL, Avista, SEL, Power Engineers, BPA, Edo Energy, Open Energy Solutions, Kore Power, Carbon Quest, City of Spokane, Spokane Workforce Council, GSI—converge on:

- **Neutral Convenor and Integrator for Energy Strategy:** Working at the center of a larger energy Venn diagram, we would serve as that role of integrator and energy project advocate that actively works to match partner strategies and capabilities with the needs of the energy ecosystem and community.
- **Workforce Growth & Retention:** This ensures local talent meets rising industry demand and fosters stable, long-term economic growth.

- **Accelerated Innovation & Demonstration:** Provide support and industry expertise, simulation and laboratory testing capabilities, and demonstration support for emerging technologies, we reduce risk and expedite commercialization.
- **Regional Energy Economic Development:** Expanding advanced R&D, demonstration sites, and investments draws capital and new business to the Inland NW.
- **Resilient Community Infrastructure:** Building microgrids and advanced DER solutions defends against extreme weather and grid vulnerabilities.
- **Equitable Outcomes:** Focusing on underserved communities ensures the clean energy transition benefits all residents fairly.

Grouping of Persistent Patterns and Strategic Alignment

- **Rural & Tribal Partnerships:** Emphasizes equitable pilots and ensures local co-ownership to foster trust and address the unique constraints rural and tribal areas face.
- **Utility & Industry Partnerships:** Coordinates IRP and aggregator business models while catalyzing demonstration testbeds. These alliances accelerate technology adoption and unify best practices regionwide especially when connected with academic partners.
- **Academic & Workforce Partnerships:** Jointly designing micro-credentials, K–12 modules with special emphasis on middle-school, and apprenticeship expansions. This integration broadens the pipeline of skilled workers vital for advanced energy projects.
- **Investors & Incubators:** Fostering specialized cleantech incubation, bridging near-term pilots with scale-up capital (i3). By connecting entrepreneurs to risk-tolerant funding, we spark sustained energy innovation.

Why the INTENT Energy Cluster Is Different

Drawing from **Clean Tech Alliance, Grid Forward, Fuse Fund, E8 Angels, Vertical Energy, LaunchPad Northwest**, and other energy organizations:

- **Deep Interweaving of Community Projects**
 - Emphasizes grassroots resilience and equity by prioritizing local microgrids and tribal-led demonstrations.
- **Cross-Border Policy Coordination**
 - Bridges Washington and Idaho, aligning projects and fostering bipartisan synergy.
- **Early-Stage Investment + Utility Pilots**
 - Ensures startups access real-world test environments quickly, reducing R&D friction.
- **Workforce & STEM Pipeline Embedded in Core Strategy**
 - Explicit numeric workforce growth goals keep local talent pipelines front and center.

- **Holistic Ecosystem & Future Market Mechanisms**

- By championing aggregator and transactive energy approaches, INTENT positions the region for cutting-edge revenue models.

Regional vs. National Trends: Similarities & Differences

- **National Trends:** Large climate-tech infusions from BIL, IRA, CHIPS, though federal appropriations may tighten.
- **Regional Nuances:** Washington's robust carbon mandates, Idaho's cost-based approach, philanthropic bridging for rural/tribal.
- **Similarities:** Both push decarbonization, workforce expansion, pilot scaling.
- **Differences:** National scope is multi-trillion-dollar markets and big OEMs; region focuses on local co-ops and bridging philanthropic capital if federal lines shrink.

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E. Budget Expenditures

Urbanova (Grant Awardee)					
TABLE OF SIGNIFICANT EXPENDITURES (Based on amended budget)					
Budget Expenditure (NSF Budget Cost Category)	Description	Total Amended Budget for Period (\$K)	Total Actual Budget for Period (\$K)	Variance (\$K)	Mitigation Steps
	Past PI-CEO Current PI	\$ 142	\$ 133	\$ 9	No-cost extension allows ongoing sustainability planning
B. Secretarial - Clerical	Clerical, research, and data analysis support	\$ 24	\$ 14	\$ 10	No-cost extension allows ongoing sustainability planning
C. Fringe Benefits	Fringe for personnel	\$ 26	\$ 13	\$ 14	No-cost extension allows ongoing sustainability planning
A+B+C Total		\$ 192	\$ 160	\$ 33	
E. Travel	Travel for key partners to workshops, partner sites, other NSF Engines (paid by INTENT)	\$ 5	\$ -	\$ 5	No-cost extension allows ongoing sustainability planning
F. Participant Support Costs - Stipends	(paid by INTENT)	\$ -	\$ -	\$ -	
F. Participant Support Costs - Travel		\$ -	\$ -	\$ -	
F. Participant Support Costs - Subsistence		\$ -	\$ -	\$ -	
F. Total		\$ -	\$ -	\$ -	
G. Other Direct Costs - Materials Supplies	(paid by INTENT)	\$ -	\$ -	\$ -	
G. Other Direct Costs - Consultant Services	Eide Bailey Garnet Creek Innovation Architects Northwest Accounting	\$ 68	\$ 55	\$ 13	No-cost extension allows ongoing sustainability planning
G. Other Direct Costs - Other	(paid by INTENT)	\$ -	\$ -	\$ -	
G. Total		\$ 68	\$ 55	\$ 13	
H. Total Direct Costs		\$ 265	\$ 215	\$ 51	
I. Indirect	Accounting and legal support Regional entity establishment Normal business operations costs	\$ 28	\$ 24	\$ 4	Indirect costs at 10% of budget as planned
J. TOTAL		\$ 293	\$ 239	\$ 55	
				82%	Budget/Actual performance. Some capacity for remaining development award efforts.

Urbanova focus during this period involved successful management and execution of the grant award. Merging the organization's strategy and planning efforts has allowed greater efficiency of award dollars and sustainability of ongoing effort. During the next six months to close out the NSF award, we will develop a sustainability plan that includes merging organizations and continuing efforts in support of a regional workforce, innovation and funding strategies to prepare for future opportunities.

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TABLE OF SIGNIFICANT EXPENDITURES (Based on amended subaward budget)					
Budget Expenditure (NSF Budget Cost Category)	Description	Total Amended Budget for Period (\$K)	Total Actual Budget for Period (\$K)	Variance (\$K)	Mitigation Steps
A. Senior Personnel	Past PI and Engine CEO Current PD and Co-PI	\$ 247	\$ 247	\$ -	On track with new spend plan
B. Secretarial - Clerical	Communications personnel, clerical support	\$ -	\$ -	\$ -	Moved to Sr Pers and Consulting Services
C. Fringe Benefits	Fringe for personnel	\$ 54	\$ 54	\$ -	On track with new spend plan
A+B+C Total		\$ 301	\$ 301	\$ -	
E. Travel	Travel for key partners to workshops, other partner sites, other NSF Engines	\$ 4	\$ 4	\$ -	Virtual meetings lessened travel required. Moved to consulting services. On track.
F. Participant Support Costs - Stipends	Board planning retreat	\$ 12	\$ 6	\$ 6	Less participant support stipends requested. Project some participant support budget will not be used.
F. Participant Support Costs - Travel	Senior team planning session	\$ 11	\$ 3	\$ 8	
F. Participant Support Costs - Subsistence	Workshops and Conferences Sustainability Summit Final Workshop and Report Out	\$ 7	\$ 5	\$ 2	
F. Total		\$ 30	\$ 14	\$ 16	On track with new spend plan
G. Other Direct Costs - Materials Supplies	Office and printing supplies	\$ 5	\$ 5	\$ -	Some costs absorbed in consulting services leaving some capability
G. Other Direct Costs - Consultant Services	Witherspoon Brajcich McPhee EWU (Data research and Analysis) Innovation Architects Haley Lydig Events Accenture LaunchPad Inland NW* NW Accounting* * = new last six months	\$ 233	\$ 224	\$ 9	Greater use of consulting resources and organizations with energy and innovation capabilities. This will continue to be leveraged throughout the award period.
G. Other Direct Costs - Other	Incidentals Maintenance services	\$ 5	\$ 5	\$ -	Some costs absorbed in consulting services leaving some capability
G. Total		\$ 243	\$ 234	\$ 9	
H. Total Direct Costs		\$ 578	\$ 553	\$ 25	
I. Indirect	Accounting and legal support Regional entity establishment Normal business operations costs	\$ 58	\$ 52	\$ 6	Indirect costs at 10% of budget as planned
J. TOTAL		\$ 636	\$ 605	\$ 31	
				95%	Budget/Actual performance. On track with calendar and budget goals.

INTENT is on track with the amended 2024-2025 budget and spending plan to close out the development award by June 2025. Ongoing partnerships with larger consulting firms, established innovation, incubation and sustainable energy organizations has significantly helped deliver needed expertise, data insights, and experience with Engines, Hubs, and Clusters for our development program.

We believe there is a strong need to continue this long-term market and energy ecosystem development effort even without progressing with the current round of National Science Foundation Engines funding. We continue to incorporate both industry and NSF reviewer comments to develop the sustainability plan and continue to build partnerships and other investment to continue this important energy sector development.

F. Resource Contributions by External Sources

In the preproposal process we have worked to identify core partners and associated resource commitments. Over the past 24 months we have grown this partner network from the original eight founding partners to over 50 organizations representing government, industry and academia, non-profit and community-based organizations, and incubation and start-up companies to be part of the regional energy ecosystem. To date, we assess over \$450,000 in value-in-kind, cash, and other resources investments have been made alongside the federal award showing value in this ongoing investment. We see great opportunities for growth and intersection with many others including established energy organizations in related areas. Based on engagements to date we anticipate the both the number of partners and levels of commitment to grow as the effort delivers results.

G. Research Security Efforts

There is nothing new to report in this section over this time period.

H. Other Notable Activities

The Inland Northwest is at a pivotal moment to determine how to continue the energy cluster effort and better tell the story for the region. Aligning microgrids, aggregator markets, workforce expansions, and advanced incubators and investors (i3) can foster equitable economic growth and climate resilience.

Future steps to consider:

- **Policymakers:** Cross-border strategy and market development to include focus on grid advancement and rural resiliency to take advantage of the distributed energy resources that will come on-line over the next decade.
- **Utilities & Industry:** Maintain an industry led group on regional energy strategy. Co-invest in demonstration pilots, ensure local workforce retention.
- **Academic Institutions:** Continue support on cluster governance and strategy, enablement of energy research and technology development, and work with cluster members for specialized curricula, research opportunities, and workforce training program development.
- **Communities:** Engage in pilot selection for resiliency and energy equity benefits needs.

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- **Investors and Incubators:** Support “Investment, Innovation, and Incubation” events bridging funding gaps. Enable more seed funding for regional projects. Assist in development of sustainable energy investment models that can be better communicated

Concluding Comment: The energy cluster (or Engines) effort is worth continuing, and there is interest by our partners to contribute to this ongoing effort and refine it to be of more definitive value. Overall synergy between top-down federal investments and local demonstration underscores the region’s readiness to expand, aligning near-term membership growth, capital attraction, pilot project expansions, and numeric workforce/investment goals which also align with ongoing federal and state initiatives.