GRIP:

Lessons Learned from Round 1 and Insights for Round 2 Applications

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Acknowledgements:

1. Paper Content based on discussions during the workshop: Lessons Learned from GRIP Round One, held during gridCONNEXT 2023 on December 6. Presenters included:
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Executive Summary (who is this paper for?)

This white paper summarizes key insights and important recommendations derived from the workshop "Lessons Learned from GRIP Round One" held during gridCONNEXT 2023. The discussion was designed to inform utilities, technology vendors, consultants, and other stakeholders interested in submitting proposals for the Department of Energy's Grid Resilience and Innovation Partnerships (GRIP) program in the next round.

The session included an overview presentation delivered by Ariel Horowitz, Deputy Director from the Department of Energy's (DOE) Grid Deployment Office. Horowitz outlined objective refinements around desired project emphasis areas, updated scoring approaches, as well as specifics on critical dates or award sizing adapted from the inaugural funding round. The session then included vendor and utility perspectives on lessons learned from GRIP Round 1 as well as recommendations for GRIP Round 2 applications.

A recording of the session in its entirety can be found here: https://youtu.be/bR2yRJoy7AM.

Utilities or vendors who applied to GRIP Round 1 as well as new applicants will find the insights in this paper useful. For electric utilities, it provides pertinent observations from peer implementers on budget/timeline realities plus technology expectations and partnership models. For vendors, similar insights are available and may help with clearer customer and partner selection, and an enhanced understanding of DOE's objectives with GRIP Round 2.

Introduction and Background

Background on GRIP

The Bipartisan Infrastructure Law enacted in 2021 provided $10.5 billion for GRIP grants across three funding areas: utility industry resilience grants, smart grid grants leveraging advanced tech, and grid innovation demonstration projects. GRIP Round 1 awarded $3.5 billion towards 58 projects nationwide that will add over 35 GW of clean energy capacity. Round 2 has an open Funding Opportunity Announcement (FOA), with concept papers due January 12, 2024.

Altogether, the GRIP program stands as the most significant single investment initiative in U.S. grid infrastructure to date. Aligned with the decarbonization priorities of the Biden administration, it charts a course for unprecedented coordination for the clean electricity transition crucial to meeting mid-century climate targets.

GRIP combines DOE's vision for grid modernization with legislation that drives a sense of urgency heightened by increasingly severe droughts, atmospheric rivers, and polar vortexes that pose continuous threats to energy reliability. The program consolidates and expands upon earlier smart grid and enhanced resilience grant demonstrations established under the American Recovery and Reinvestment Act. Its focus on accelerated learning and replicability underscores the heightened federal adaptability required for infrastructure buildout at the pace demanded by climate imperatives.

Who Should Apply?

GRIP maintains broad eligibility, open to electric utilities, distribution providers, transmission developers, grid operators, technology vendors, universities, municipalities, tribes, community organizations, and more. Lead applicants vary based on specific FOA topic area - for example, under the utility resilience grants, only electric utilities/service providers can apply whereas the innovation demonstration topic allows state/local governments, tribes, or native organizations to be lead.

GRIP Round 2 Basics

Concept papers for Round 2 are a required first step in the application process and are due at 5:00 p.m. ET on January 12, 2024. DOE encourages a simplified form-based two to three-page concept focused on vision and partnerships, with applicants invited to full proposals notified in February or March 2024. Full applications have two deadlines split by topic area - Grid Resilience Grants and Innovation Demonstrations and Smart Grid Grants. Awards will likely be announced in Fall of 2024.

GRIP Round 2: An Overview of Changes

Streamlined Form-Based Concept Paper

Marguerite Behringer of Landis+Gyr praised the Round 2 streamlined forms limiting answers to 2000 characters, easing applicant challenges faced in Round 1 who had to provide open-ended narratives. The simplified format includes overview details on vision, impacts, community benefits, and utility size claiming reduced cost-share. Horowitz noted that this approach enables faster review turnaround through bite-sized content aggregation.

Adjusted Technical Review Criteria

Chris Kelley of Beam Reach Consulting Group asked Horowitz about application scoring. Horowitz explained full application criteria now has four overarching categories - impact/technical merit, project plan specifics, replicability/additionality and community benefits accounting. This reformatting better aligns desired content with proposal scoring.

Priority Investment Updates

Horowitz overviewed realigned technical topic areas and priority investments per Round 1 applicant responses. Under Grid Resilience grants, targeted additions include vegetation management, risk modeling and multi-territory efforts improving best practice sharing. For Smart Grid grants, specified focus areas now cover transmission innovation, interoperability, interconnection queue coordination and substation demonstrations. The Grid Innovation program emphasizes transmission improvements, distribution flexibility and behind-the-meter storage aggregation.

Award Size Modifications

While Round 1's funding opportunity announcement included provision for awards up to $1 billion, Round 2 will implement minimums scaled by topic of $10-50 million plus exceptions for maximums by project type to incentivize partnerships meeting higher impact thresholds. Horowitz clarified that DOE's evaluation links impact proportionality to requested federal funding, balancing innovation benefits against responsible budget oversight.

Findings and Lessons from GRIP Round 1

From Utility Perspective

Utility Feedback on GRIP Round 1 Application Challenges

Several utilities involved in the panel indicated navigating the application structure proved arduous, particularly given shifting timelines that extended the award decision process nearly 5 months longer than anticipated. Successfully awarded projects emphasized partnerships across utilities - over 30% involved some form of utility consortium. Technology-focused proposals centered solely on conventional infrastructure upgrades, such as advanced meter deployments, faced challenges in comparison to those utilizing more innovative grid-enhancing solutions.

Key Award Trends Identified

Review of awarded projects indicates several priority trends, including clusters of awards advancing wildfire prevention/mitigation capabilities as well as microgrid commercialization and standardization to create replicable local energy resilience. Solutions supporting high renewable energy integration through distribution and transmission system interoperability represented another common theme among recipients.

From Vendor Perspective

Importance of Early Role Definition Between Partners

Technology vendors emphasized the critical nature of early alignment across consortium members on aspects such as cost-share distribution or technology integration risks. Delays in negotiating details post-award can introduce significant project delays. Experience indicates that RFP respondents often underestimate the required effort to appropriately scale innovations for demonstration and establish product channels that enable widespread commercial adoption.

Role of Community Partnerships and Benefits Plans

Applications incorporating detailed, substantive community benefits plans with meaningful engagement earned stronger scores. Reviewers favored proposals actively coordinating workforce training, disadvantaged community assistance, and environmental justice commitments packaged holistically rather than ad-hoc ancillary additions.

Recommendations

Competitiveness Considerations for Project Teams

1. Pursue private-public partnerships strategically leveraging respective capabilities.
2. Prioritize early community entity involvement for co-creation vs. retroactively incorporating.
3. Seek project advisor guidance from experts successful with past DOE pursuits.
4. Design initial concepts and frameworks for rapid elaboration into full proposal.

Managing Waiting Period after Concept Papers

The panelists emphasized that applicants should continue proactively advancing partnerships, responsibilities distribution and other collaboration factors during the 4+ week concept paper review timeframe. Attempting to resolve all inter-party details *after* receiving notice to proceed with full proposals proved overly ambitious for round 1 applicants, resulting in rushed configurations lacking sufficient technical or legal refinement.

Highlighting Innovation Within Utility Roadmaps

Given reviewer feedback on striking balance between new innovations and ready-to-deploy initiatives, applicants should consider identifying where targeted technology integration and additional community assistance offers differentiated value atop existing infrastructure improvement roadmaps.

Emphasizing Shovel-Ready Strengths

To maximize odds for award selection, project teams should extensively detail critical path schedule plans, risk management protocols, staffing, and supply chain abilities within written submissions and attached capability statements.

Other Topics Relevant to Proposers

"Buy America" Challenges

An attendee referenced ongoing applicant uncertainties with respect to reconciling Buy America domestic requirements amidst current grid vendor manufacturing locations. Specifically, they noted exemptions for investor-owned utility (IOU) lead recipients and asked whether those similarly apply downstream should funded states later subcontract implementation to utilities.

The panel confirmed domestic content waiver flow-down rulings aligned to original prime recipient designation. So state or local governments receiving GRIP grants would trigger Buy America enforcement across the entire supply chain, even if utilities or private partners take over execution. There were mentions of anxiety across technology vendors around the ability to currently source 50%+ US iron, steel and manufactured components. As rules phase in requiring higher thresholds, there are expectations of barriers limiting project viability if waiver process remains unclear.

Unlike more common waivers around microgrids or advanced transmission controls, DOE maintains little leniency thus far in issuing blanket Smart Grid or Grid Resilience exemptions. So, project selection weighing supply availability against criticality has become necessary where higher funding made more likely lack of domestic availability waivers.

Concept Paper Development Approach and Staying Proactive During Review Periods

An attendee asked how applicants can effectively develop a concept paper given the relatively short time to respond over a holiday period. Behringer advised keeping initial visioning high-level to meet attainable concept deadlines and deferring complex partnership structures and detailed project descriptions for the full application.

During DOE's concept paper review period, activities that mutually benefit project partners like grid interoperability discussions or measurement and validation planning could continue. In addition, tentatively exploring aspects like community assistance planning helps to save time during the full proposal development period. Ultimately, the decision on what to work on should be based on risk tolerance between the partners.

Behringer acknowledged that some application anxiety stemmed from the scramble associated with unexpected application and award shifts last round. But organizing early partnerships and discussions pre-application may ease delays responding to future funding opportunities.

Conclusion and Next Steps

In conclusion, prospective applicants interested in pursuing the significant dollars associated with GRIP infrastructure funding face tight timelines to organize their project teams and proposals over the next 3-4 months. While the path includes extensive paperwork and no guarantee of award, creative opportunities exist to accelerate critical grid infrastructure upgrades. Entities able to leverage lessons learned from prior DOE grant experience and multi-entity collaborations will be better positioned as they enter the GRIP applicant pool.