

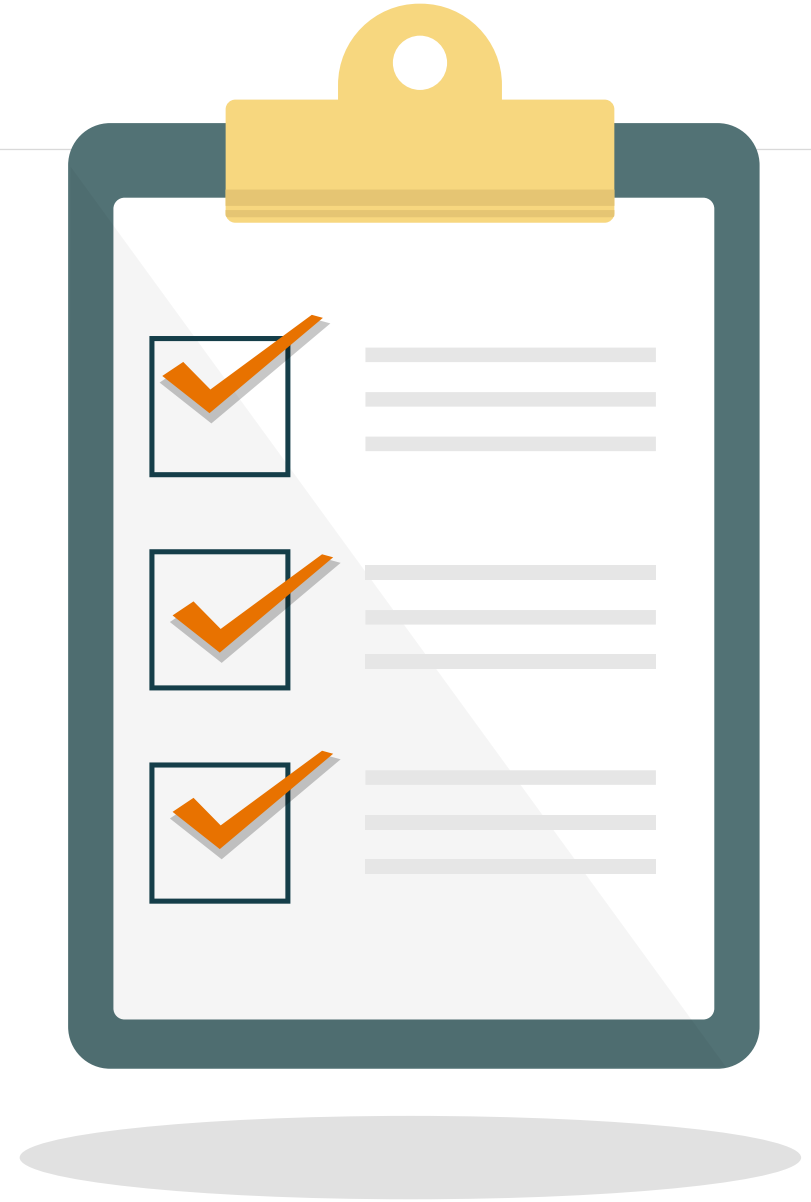


Development of a Statewide, Multi-Use Online Energy Data Platform (DE 19-197) Update

NH PUC Presentation 10/12/2023

Agenda

1. GRIP Grant (CENH)
2. Schedule update (Justin Eisfeller)
3. Update on Dunsky work streams (Riley Hastings)
4. Ask for additional scope from Dunsky multi variable analysis (Riley Hastings)
5. Update on Utelligent work stream (Jeremy Haynes)



GRIPS GRANT REVIEW



The Benefits of the Data Platform Are Contingent

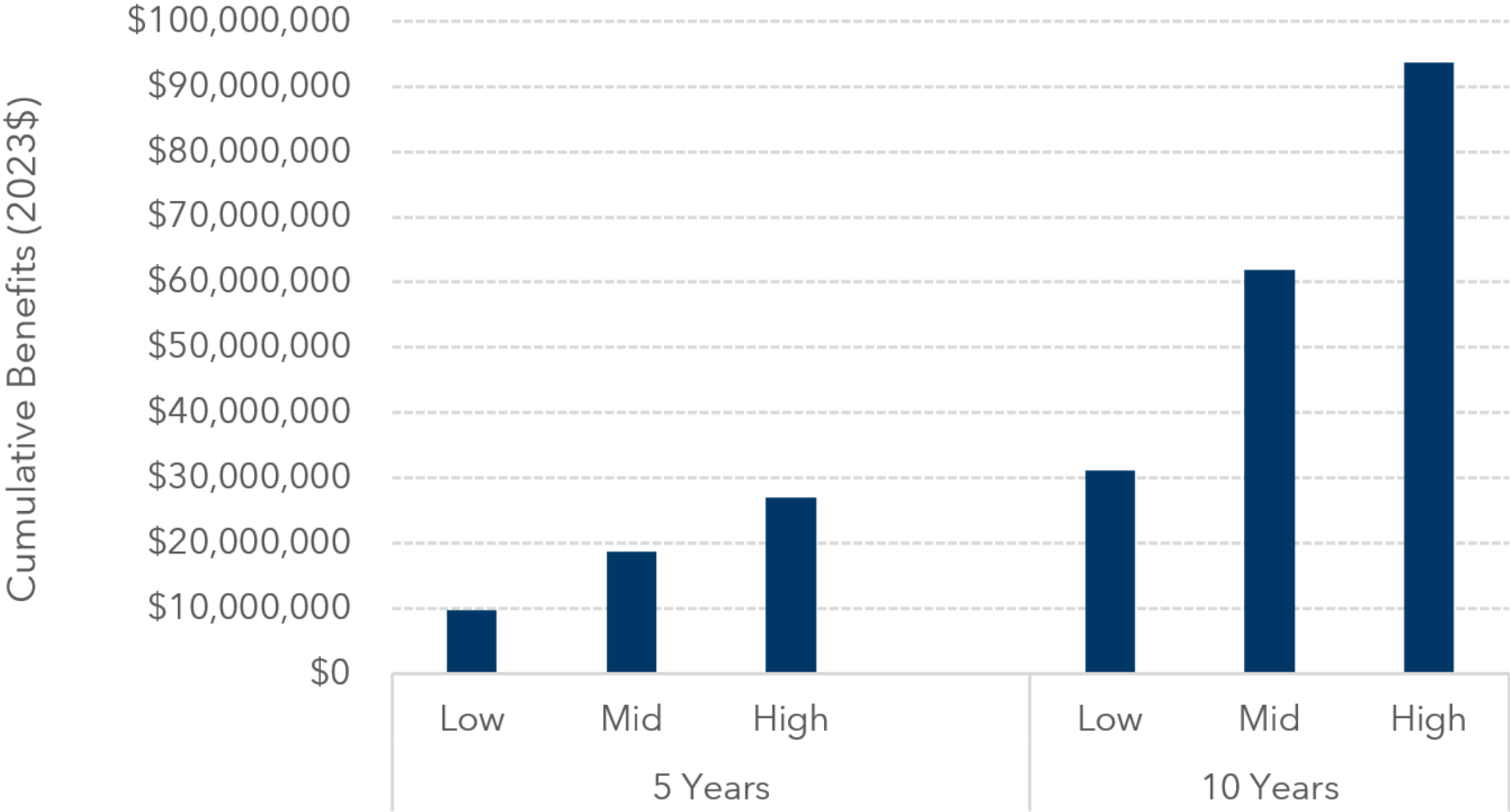
\$31M

\$94M

"Photo by [Jens Lelie](#) on [Unsplash](#)"

The Benefits of the Data Platform Are Contingent

Figure 3: Total cumulative benefits by timeframe and scenario



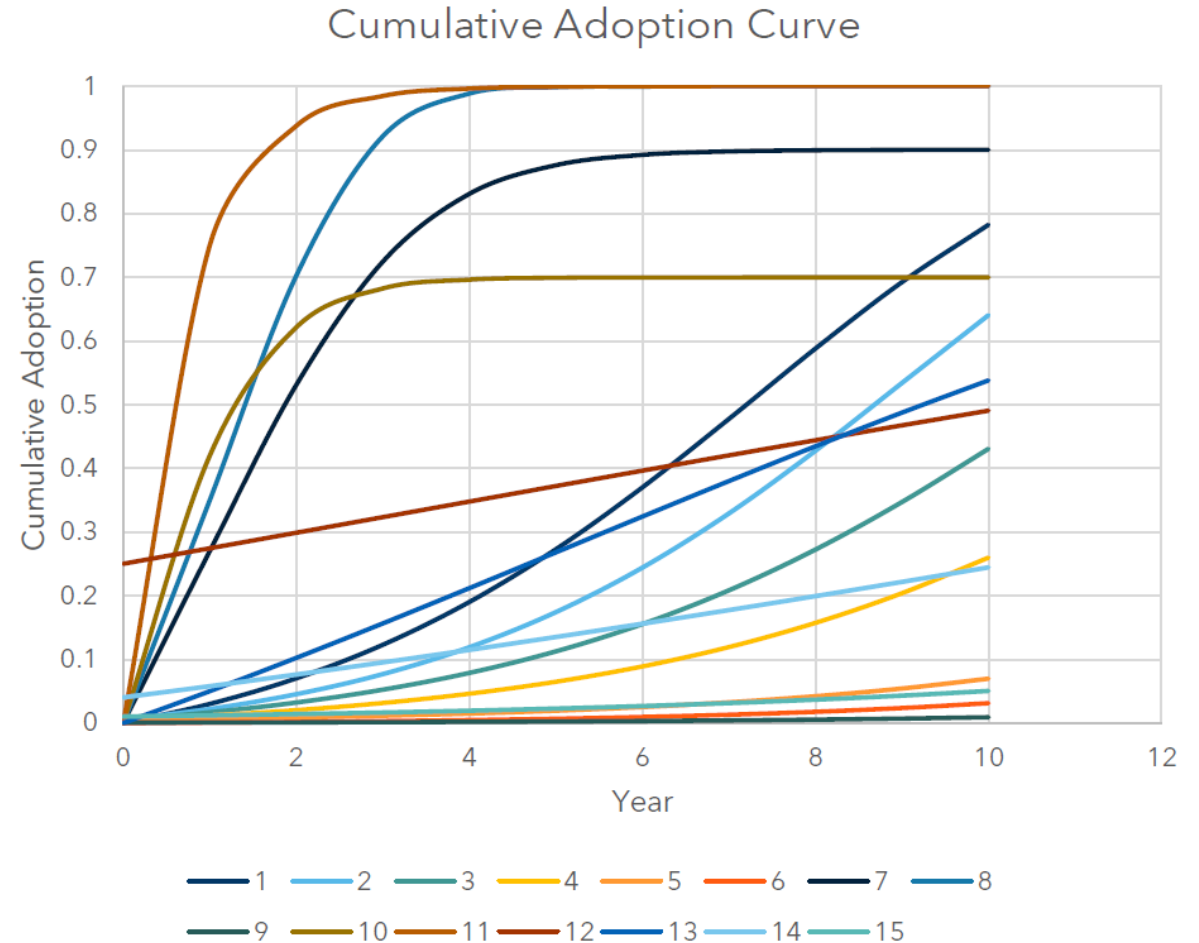
* Based on draft Dunsky Benefit Study



The Benefits of the Data Platform Are Contingent

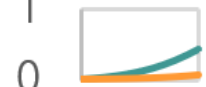

- The goal is market transformation
- But that outcome is not assured

Illustrative Example - Diffusion Curve



* Based on draft Dunsky Benefit Study

The Benefits of the Data Platform Are Contingent

<p>Improved efficiencies in utility consumption and billing data collection processes</p>	<p>New Use Cases</p>	<p>3 5</p>		<p>Slow ramp-up of new use-cases with increased GB awareness. Lower for res and small C&I</p>
<p>Energy Efficiency - Conservation</p>	<p>Varies by building ownership and customer type</p>	<p>4 5 6</p>		<p>Limited to 25% of the population. Slow ramp-up as energy literacy increases through improved access to energy consumption. Includes HOMES prgm. Lower impacts for: - Residential (5) - Small commercial (owner / tenants) (5/6)</p>

* Based on draft Dunsky Benefit Study



Grid Resilience and Innovation Partnerships (GRIP) Grant

- Grant will allow **parties to engage in planning and outreach** we should be doing regardless
- **Planning to request \$3-6M**
- Grant activities **increase the consumer benefits** of the Energy Data Platform



Grid Resilience and Innovation Partnerships (GRIP) Grant

Section 40107: Smart Grid Grants (\$1,080M, up to \$50M ea)

...seeks to deploy and catalyze technology solutions that increase the flexibility, efficiency, reliability, and resilience of the electric power system, with particular focus on ... the following objectives

- **increase the capacity of transmission facilities or the capability of the transmission system to reliably transfer increased amounts of electric energy;**
- **integrate variable renewable energy resources at the transmission and distribution levels; and,**
- **facilitate the aggregation and integration (edge-computing) of electric vehicles and other grid-edge devices or electrified loads.**

“DOE will require that projects support data standards (e.g., Green Button Connect), interoperability, and non-discriminatory data access on a real-time basis.”

Strategic goal: Catalyze and leveraging private sector and non-federal public capital for impactful technology and infrastructure deployment



Grid Resilience and Innovation Partnerships (GRIP) Grant

Priority investment include:

- Enhancing interoperability and data architecture of systems that support two-way flow of both electric power and localized analytics to provide information between electricity system operators and consumers.

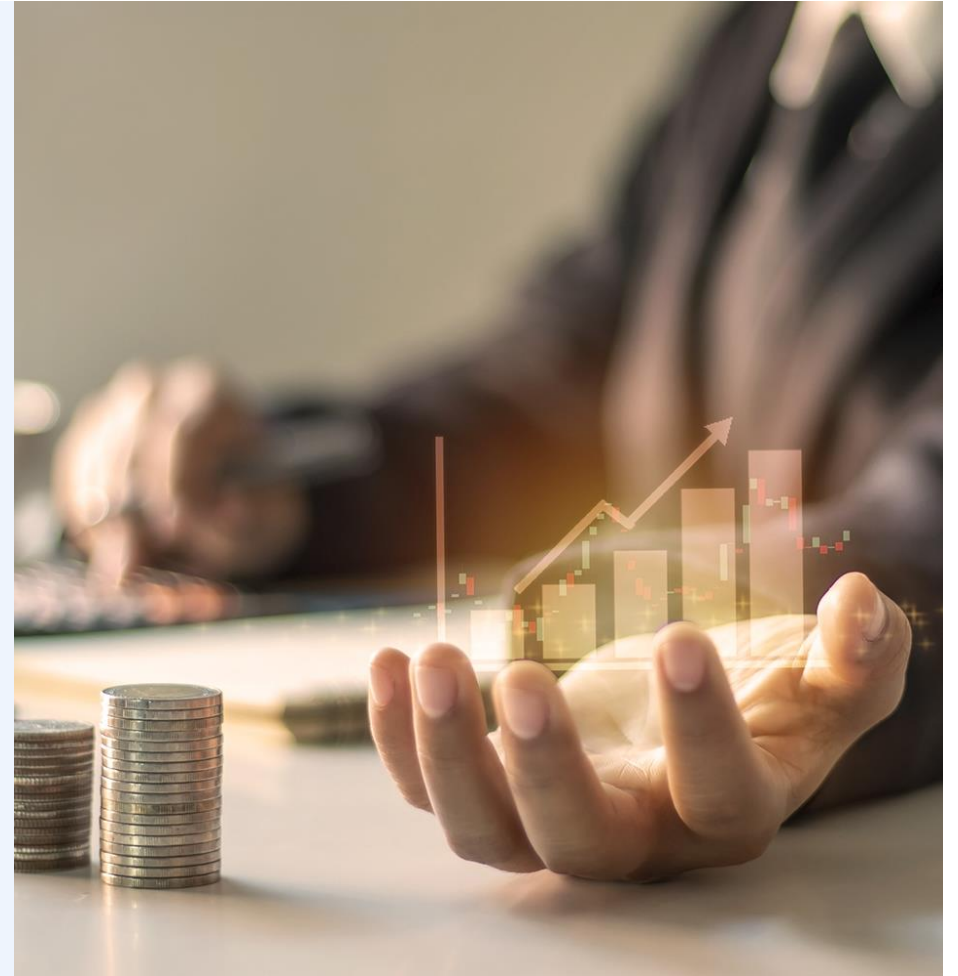
Allowable investments include:

- In the case of software that enables devices or computers to engage in Smart Grid functions, the documented purchase costs of the software.
- In the case of entities that operate or coordinate operations of regional electric grids, the documented expenditures for purchasing and installing such equipment that allows Smart Grid functions to operate and be combined or coordinated among multiple electric utilities and between that region and other regions.
- In the case of data analytics that enable software to engage in Smart Grid functions, the documented purchase costs of the data analytics.



Grid Resilience and Innovation Partnerships (GRIP) Grant Proposal

- Will **reduce costs to rate payers** for the platform
- Grant **requires a 50% match** from participating companies
- Monies expected to be split between **buying down the platform** and assisting with program offerings, which will include:
 - **Services provided by partner** organizations to provide benefits to customers and invest in community outreach, education, etc.
 - Connecting **third parties** to platform
 - Providing **municipal benefits**
- Some savings will be seen in platform rollout and engagement costs regardless of grant



Why Do We Need a Consultant?

- DOE grant has **complicated requirements**
- Requires **coordination** between numerous stakeholders
- US DOE identified 4 out of 5 **areas for improvement** in our prior concept paper
- Limited resources available



Grid Resilience and Innovation Partnerships (GRIP) Grant Proposal

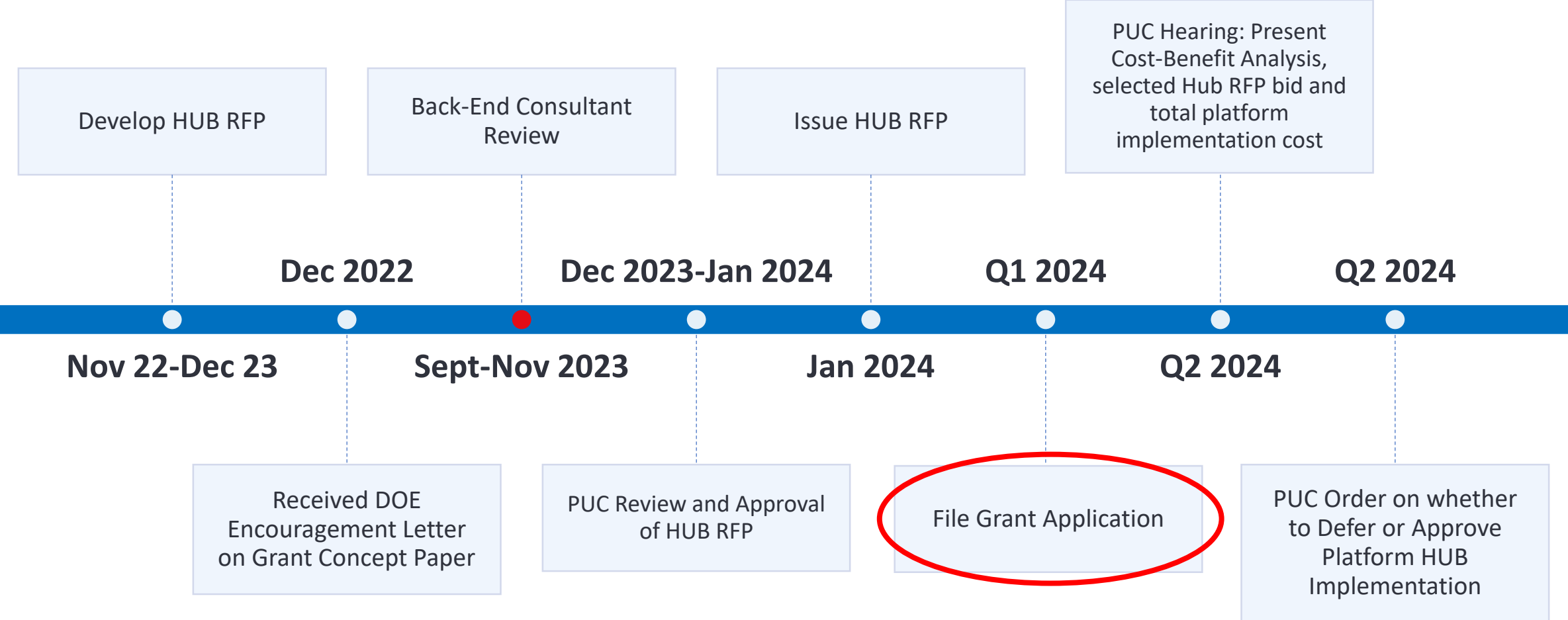
We seek PUC approval to:

- Add a grant proposal workstream to the scope of NH Energy Data Platform project
- Hire a consultant in support of grant development
- Develop a grant proposal for a \$6-12M project



Timeline

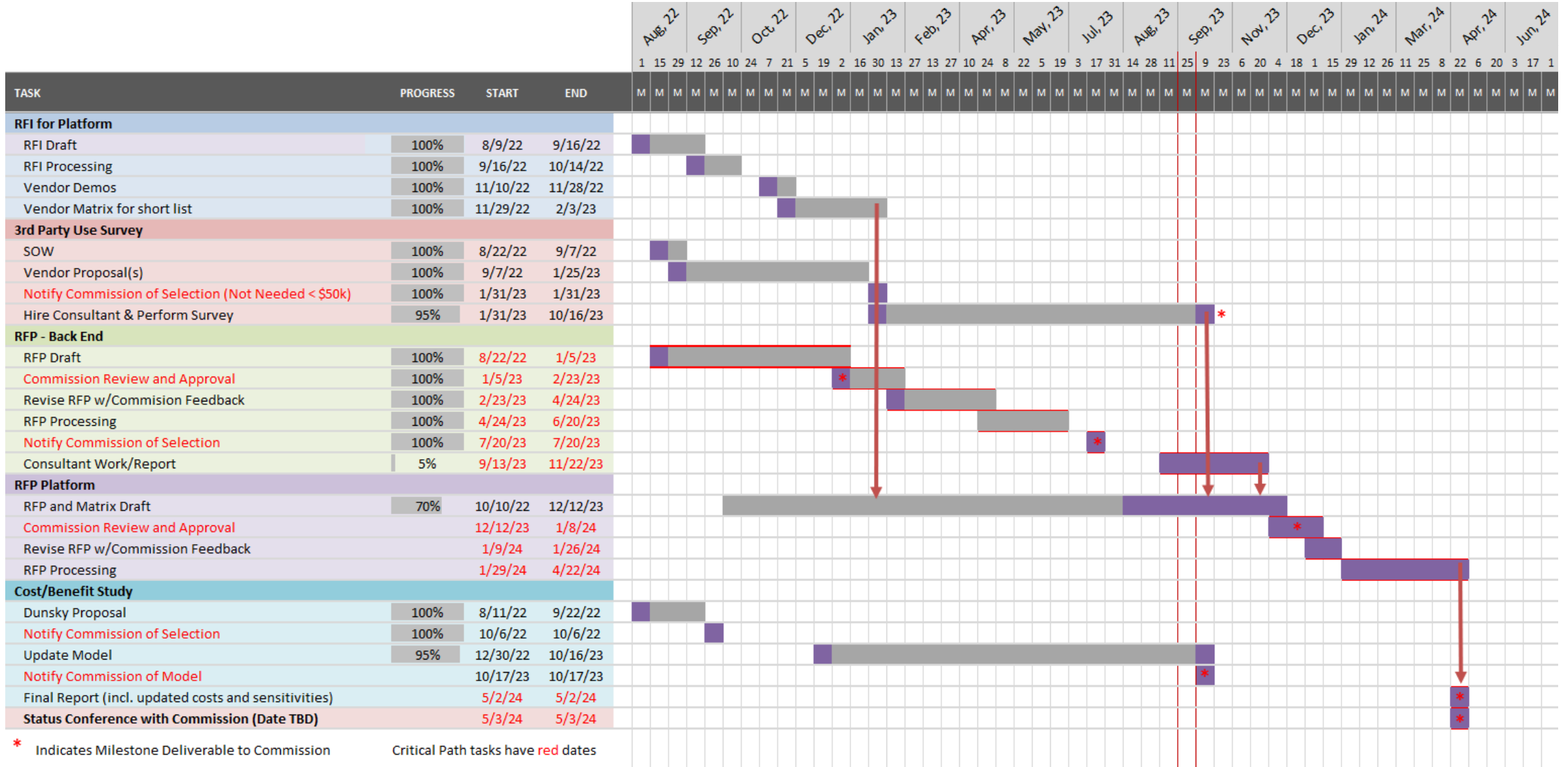
General Overview



UPDATED SCHEDULE REVIEW



Summary Schedule



OVERVIEW OF DUNSKY WORK



Dunsky Study

Cost-Benefit Analysis

- Dunsky Energy + Climate Advisors (Dunsky) was retained to provide technical support to define and quantify the benefits that an online energy data platform in New Hampshire can be expected to bring. This analysis will support the NH PUC in its assessment of cost reasonableness to ratepayers.
- Preliminarily, for the Mid Scenario, total benefits over the first five years are equal to \$18.6 million, growing to \$62.0 million by year ten.
- The Governance Council has provided comments on the draft report and are awaiting a new draft from Dunsky.

Vendor Market Survey

- Dunsky was also retained to conduct a survey of third-party energy service providers to ascertain interest by various potential users of Green Button Connect My Data (CMD).
- The intention of this work is to further refine the potential use cases and benefits for the CBA analysis.
- Includes the results of nine market survey interviews with Green Button stakeholders. These interviews were conducted to understand the level of interest, potential benefits and use cases, and limitations or barriers to implementing a statewide energy data platform in New Hampshire.
- The report includes both quantitative and qualitative findings.
- The Governance Council has also provided comments on the draft report and are awaiting a new draft from Dunsky.



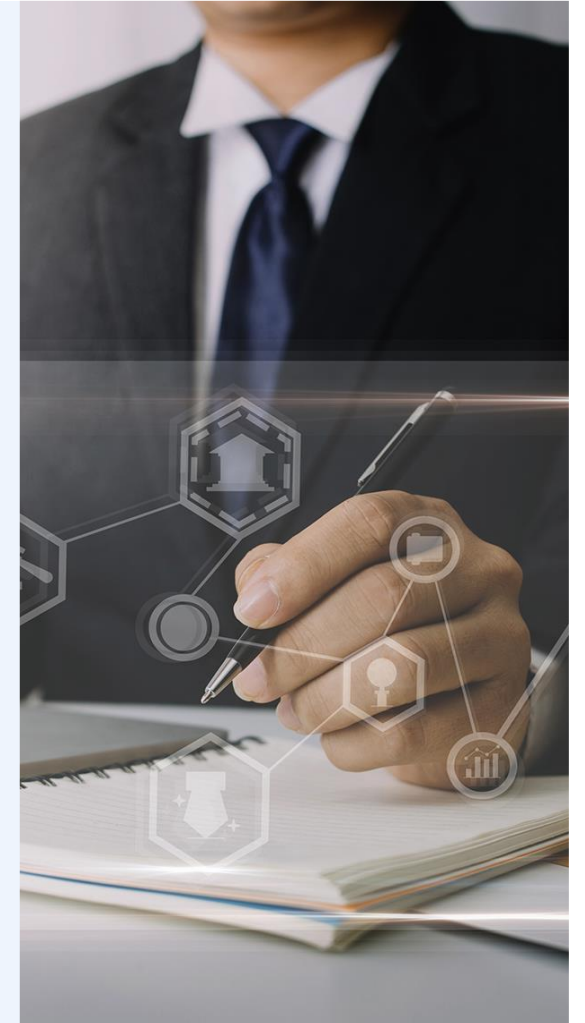
ADDITIONAL
DUNSKY
SCOPE OF WORK PROPOSAL



Dunsky – Change Order Request

Update model to provide for enhanced scenario analysis:

- Allow for selection of scenario by “benefit” and “sub-benefit” categories
- Allow for disparate high, medium and low scenario selection
- Expose scenario input to allow potential for Monte Carlo simulation
- Provide separate reporting page for this unique scenario
- Budget: \$3,450



OVERVIEW OF UTILLIGENT WORK



Uitelligent – Back End Review Status (10/6/23)

Key Achievements

- All contracts in place
- Two design reviews completed with Eversource, one with both Liberty and Unitil
- A set of Platform Hub and backend design review documentation provided from each utility
- Initial design completeness and quality initiated this week

Upcoming Activities

- Complete Liberty and Unitil design follow-up reviews (focus on project plans and support costs)
- Develop initial findings (including design gaps) from analysis of design reviews and documentation
- Review initial findings with each utility to validate and address any questions.



Back End Review Schedule

The baseline project schedule is a nine-week plan with a final report expected to be complete by the end of November

