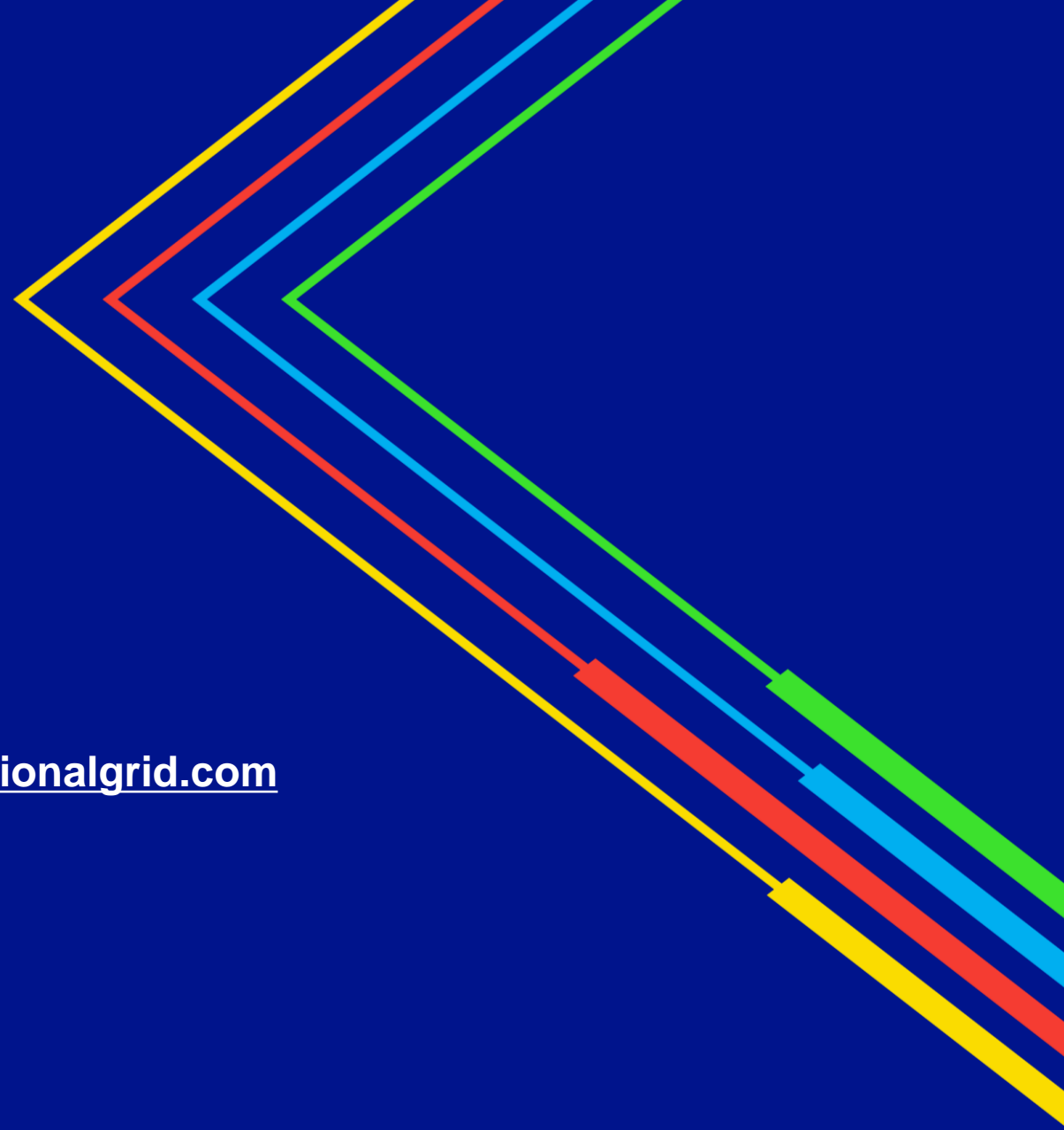


March PEX Meeting

March 20, 2024

Mathew McCarthy mathew.mccarthy@nationalgrid.com

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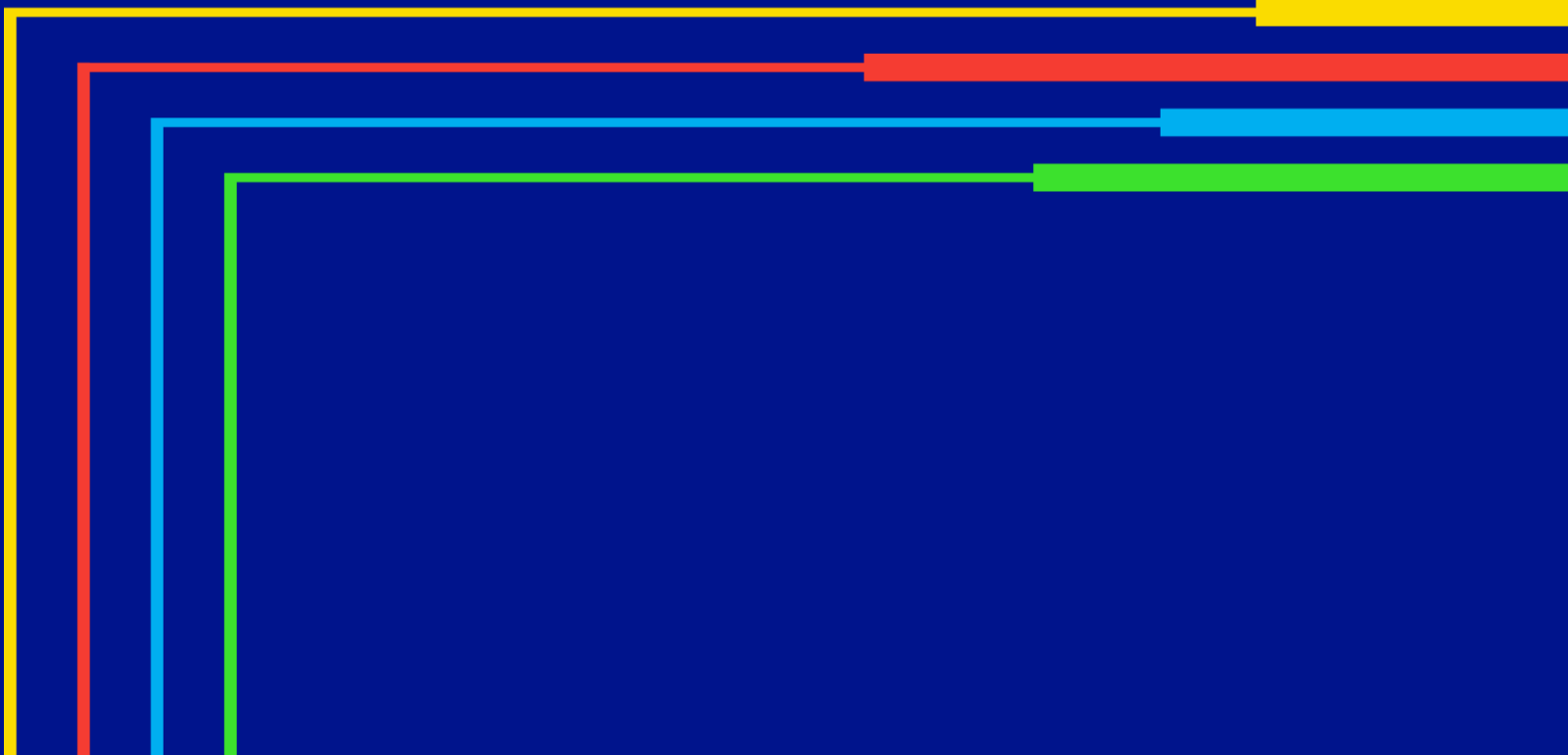
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01

Safety Moment - Dehydration and its Impact on the Heart

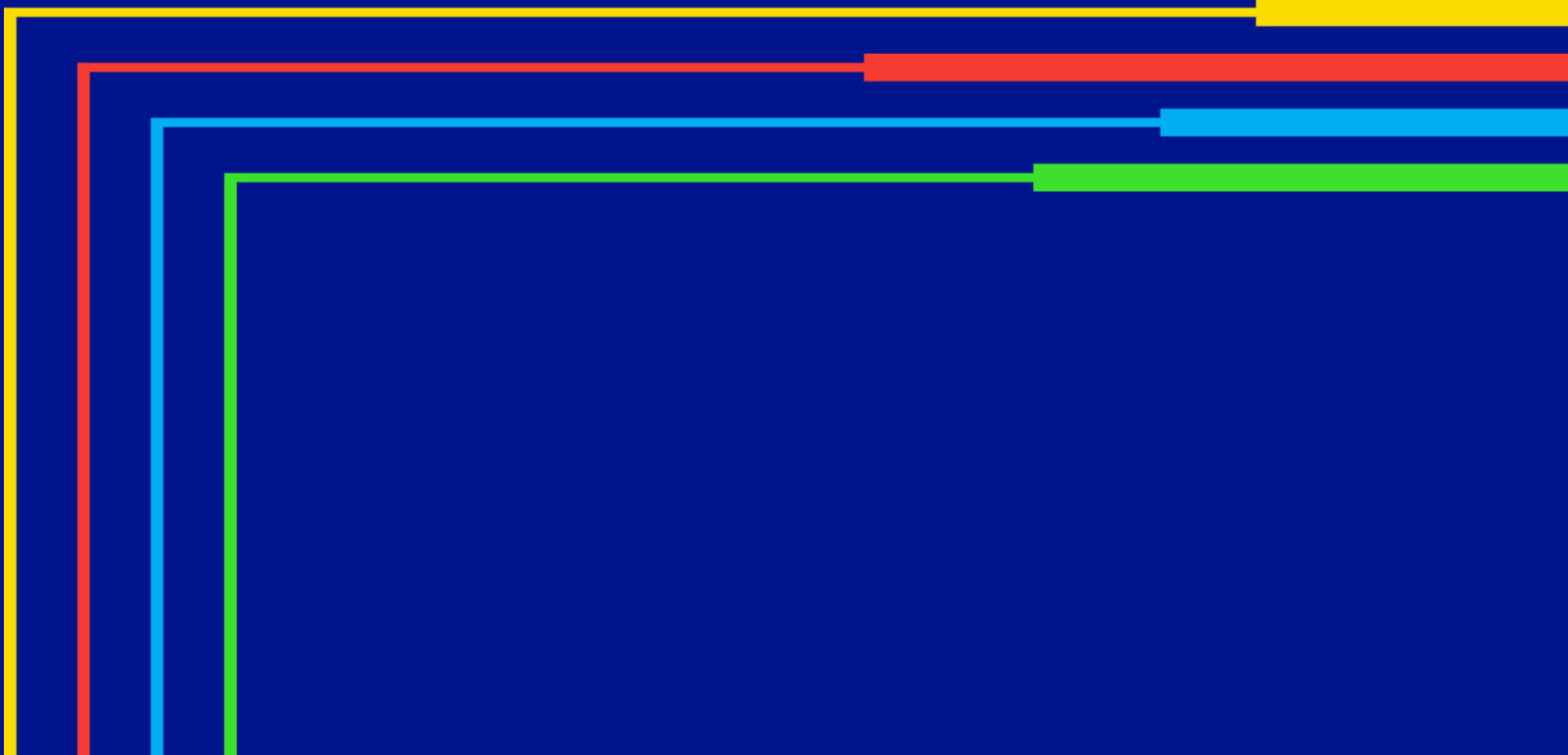
Wayne Burgess wayne.burgess@nationalgrid.com



02

National Grid's Latest VFD Initiative

Gianni Figueroa gianni.figueroa@nationalgrid.com

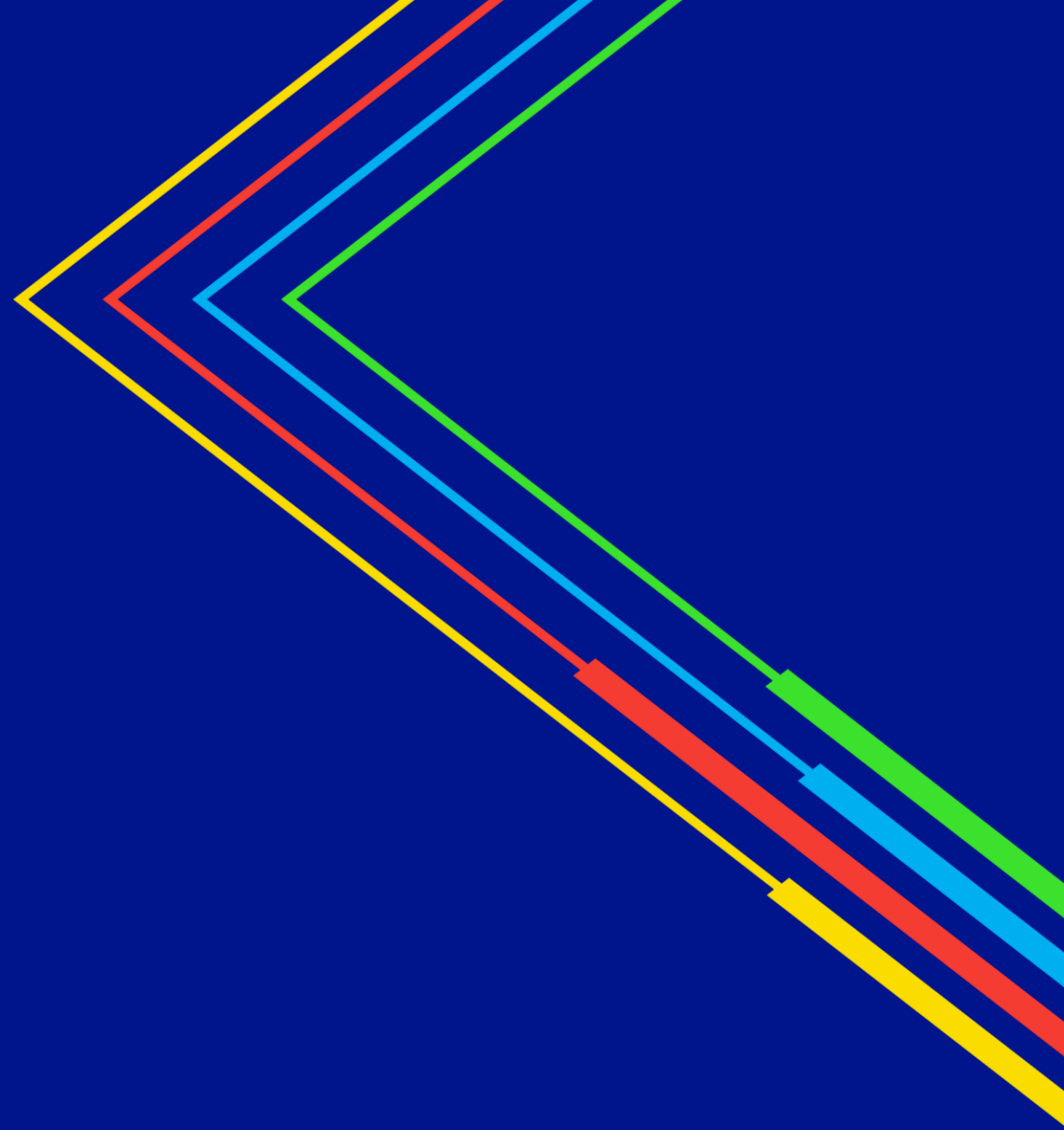


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New VFD Program Project Intake

Gianni Figueroa

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Custom Projects – Required Supporting Documentation

Scenario	Prescriptive / Custom	Measure Life	Verification of Failure Mode
VFD failed	Either	13	VFD screen will not turn on. Whatever equipment VFD should be controlling is now receiving full input power.
Replacing VFD operating at 60 Hz/in bypass	Either	13	VFD no longer modulates in response to downstream input. Seeing VFD at 60Hz at site visit does not necessarily mean VFD is operating in bypass – Needs to be verified by trend data where available.
Reprogramming VFD operating at 60 Hz/in bypass	Custom	5	Same as above

Intake Requirements

- **VFD Failed**
 - Customer data and/or written confirmation of failed drive.
 - If failed less than two years or unknown length of time: documentation showing that customer cannot/will not repair (examples of documentation: maintenance logs, email from customer describing why repairs will not be made, other documentation showing customer historically has deferred capital investment)
- **Replace VFD operating at 60Hz/in bypass**
 - Customer data + demonstration it's an appropriate use case
 - Customer data should demonstrate the customer intended to run it like this indefinitely. Examples include: has been running at 60 Hz for 2+ years; drive was never commissioned/programmed; the site does not know why it was operating this way; the site decided to set the drive to 60 Hz.
 - **Exception:** if drive was installed through program but never commissioned/programmed, we should not claim additional savings for reprogramming/replacing.
- **Reprogramming VFD operating at 60 Hz/in bypass**
 - Same as Replace VFD operating at 60Hz/in bypass

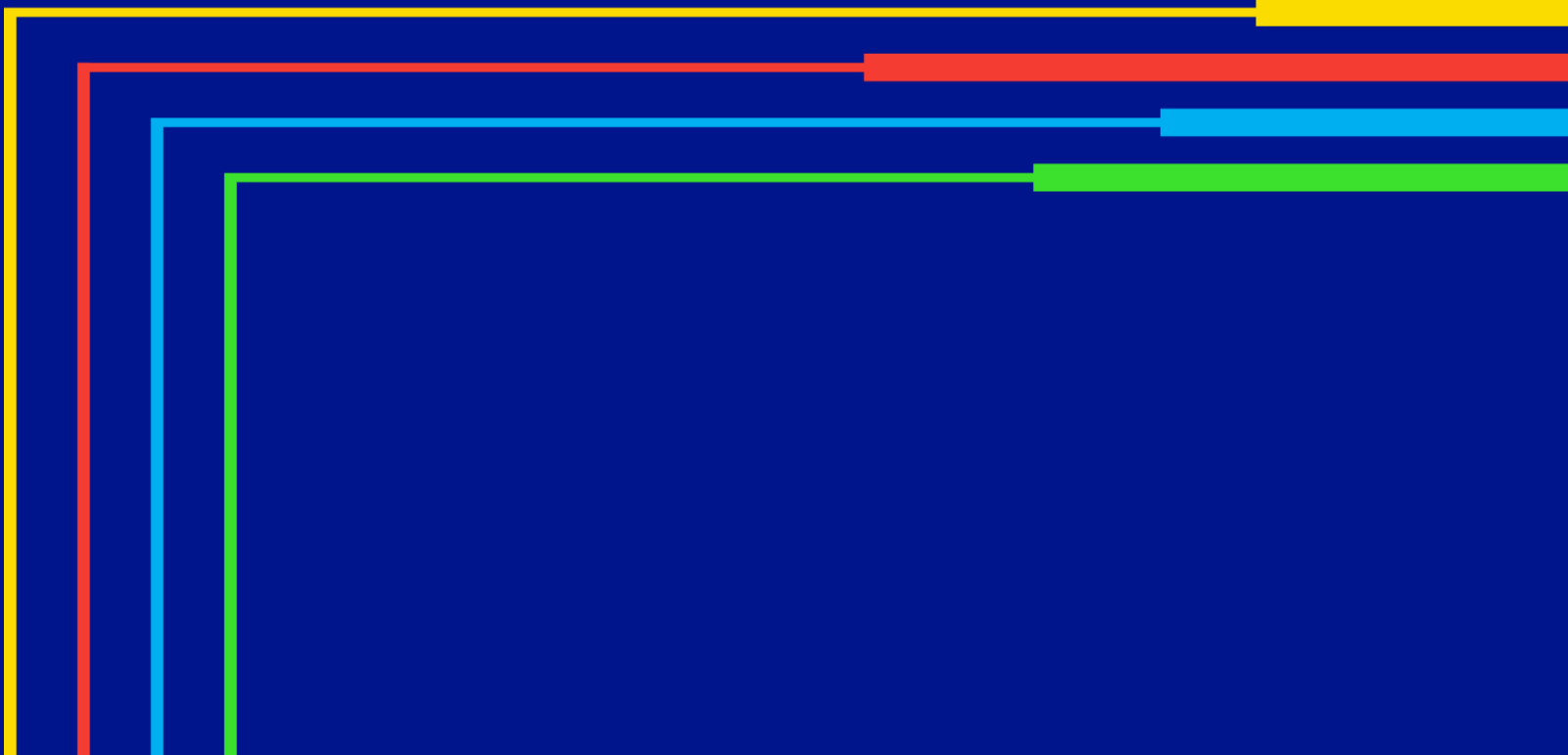
Information Required for Review

- **General Requirements**
 - Nameplate horsepower/efficiency of controlled equipment (Provide picture as supporting documentation)
 - Served End Use
 - Control Method/Sequencing
 - Min VFD Setpoint
 - Vendor Control Diagram (if available at time of review)
 - Facility occupancy scheduling
 - Current/proposed setpoints
- **Heating/Cooling End Uses**
 - Heating/Cooling lockout temp
- **Ventilation End Use**
 - Min Ventilation % relative to rated CFM of air handling unit
 - Verify if system provides conditioning or just ventilation
 - Verify any additional controls on system (Demand Control Ventilation, etc)
 - Breakdown of building floor space by end use (open/closed office space, lab space, etc)
- **Process End Use**
 - Description of required process airflow/hot water/chilled water flow/etc
 - Existing and proposed sequencing/controls
 - Process annual run hours
 - May require metering

03

Updates on the Phaseout of New Gas Equipment and Details for Retrofits

Jerry Song jerry.song@nationalgrid.com



Phaseout of New Gas Equipment:

Details for Retrofits



WE ARE MASS SAVE®:



Agenda

- 2022 MA Energy Legislation
- Which gas equipment is still expected to be incentivized?
- What are the specific deadlines to install equipment and submit all documentation?



2022 MA Energy Legislation

On August 11, 2022, former MA Governor Charlie Baker signed legislation designed to move the Commonwealth toward its goal of net-zero GHG emissions by 2050.

The Act prohibits the Mass Save Program Administrators from incentivizing new fossil-fuel fired equipment after December 31st, 2024.

H. 5060, [An Act Driving Clean Energy and Offshore Wind](#) specifically prohibits the PAs from:

spending on incentives, programs or support for systems, equipment, workforce development or training as they relate to new fossil fuel equipment unless such spending is for low-income households, emergency facilities, hospitals, a backup thermal energy source for a heat pump, or hard to electrify uses, such as industrial processes (“Fossil Fuel Spending”).

Gas retrofit measures supported after 2024

Category 1 – Measures that make gas equipment more efficient

- Heating, cooling, ventilation, and hot water controls, including combustion controls
- Existing building commissioning (retro-commissioning)
- Steam traps
- Energy recovery
- Equipment, pipe, and duct insulation and sealing
- Weatherization

Gas retrofit measures supported after 2024

Category 2 – Hard-to-electrify measures

- Specialized manufacturing or process equipment
- Thermal Oxidizers
- Process equipment that requires water temperatures over 200° Fahrenheit
- Process equipment in research laboratories for scientific or medical research
- Process equipment in hospitals or medical offices regulated by the department of public health as health care facilities
- High-temperature process furnaces or ovens (heat treating or forging)
- High-pressure steam applications greater than 15 psi
- Commercial laundry equipment
- Sanitization processes (i.e., autoclaves for hospitals and biopharmaceuticals)
- Consistent with exception language in Section 26 and Section 84 (b) of An Act Driving Clean Energy and Offshore Wind

To qualify other process equipment, please contact us. We will work with the state to determine eligibility.

Backup thermal energy

- Dual-fuel heat pump RTUs
 - Fossil fuel component of the system must run only under certain conditions, such as below a certain temperature or when the heat pump is inoperable or cannot meet the full heating load.
 - Integrated controls to ensure the unit runs primarily on electricity.
 - Incentives for heat pump components only, not the fossil fuel components.

Deadlines

Deadlines to install new gas equipment and submit all require documentation:

- Downstream Prescriptive: *Sept 30, 2024*
- Midstream: *Sept. 30, 2024*
- Custom: *Oct. 31, 2024*

Questions?

WE ARE MASS SAVE®:



EVERSOURCE



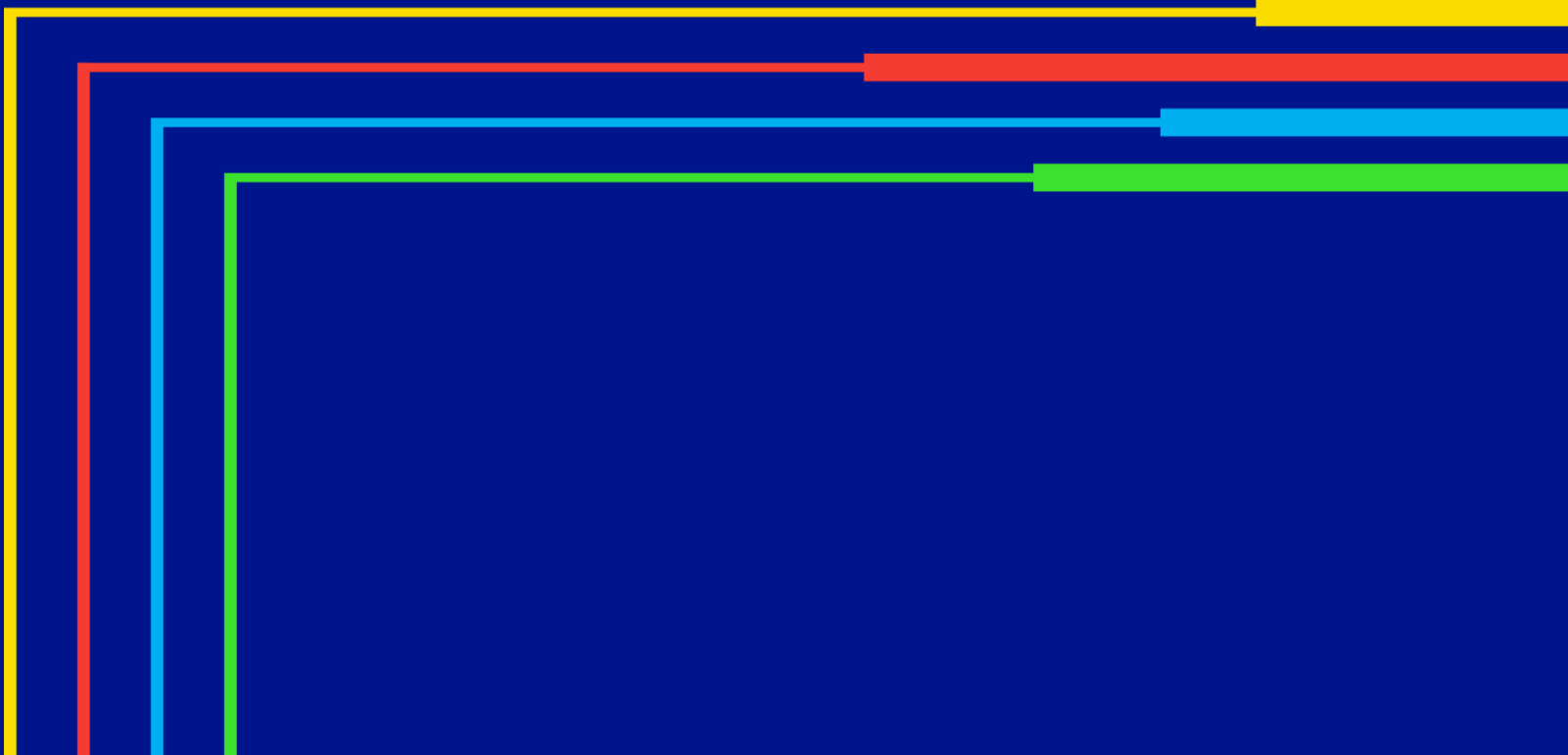
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04

Guidance on RTU Lookups on the Qualified Products List (QPL)

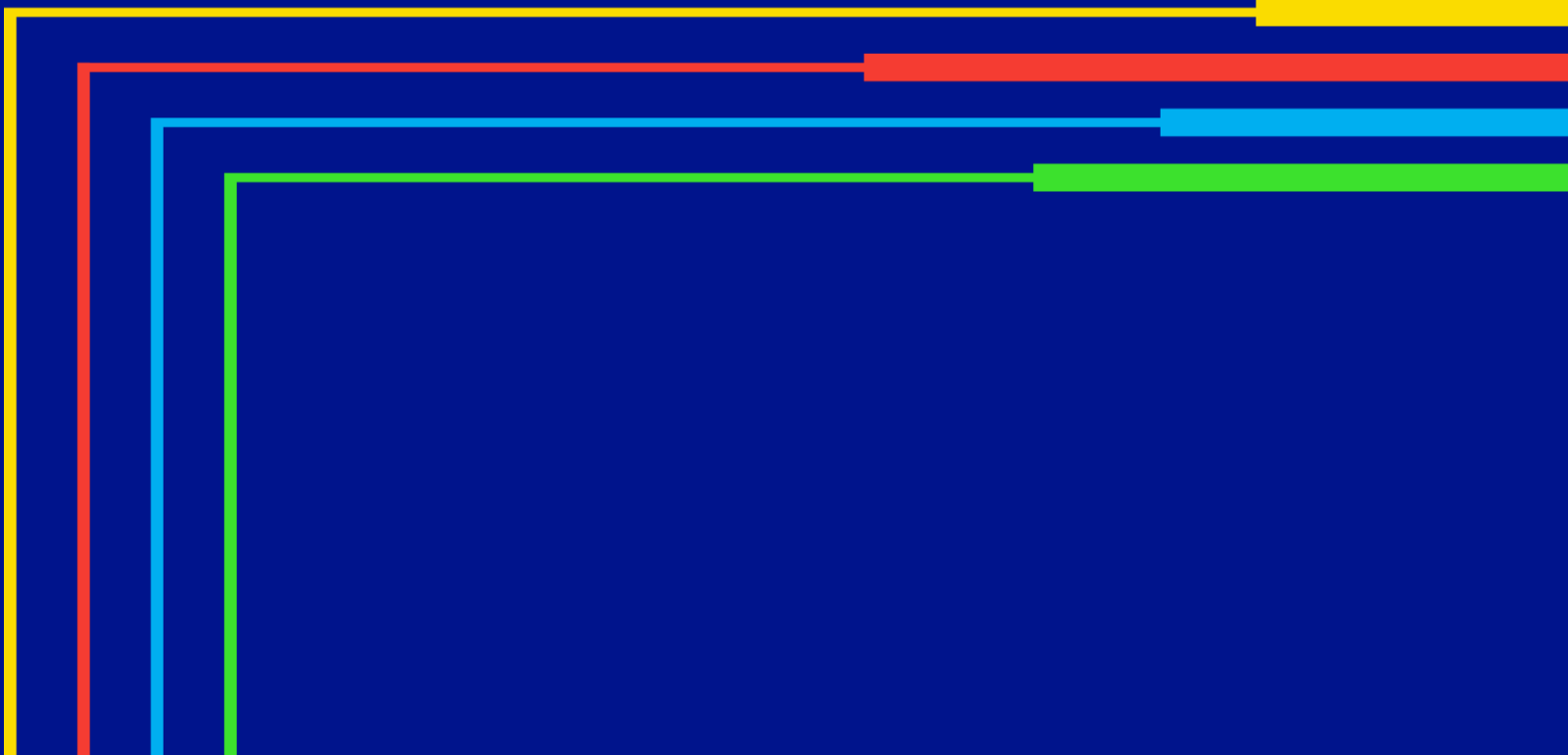
Brian Richards brian.richards@nationalgrid.com



05

PEX Program Progress Updates

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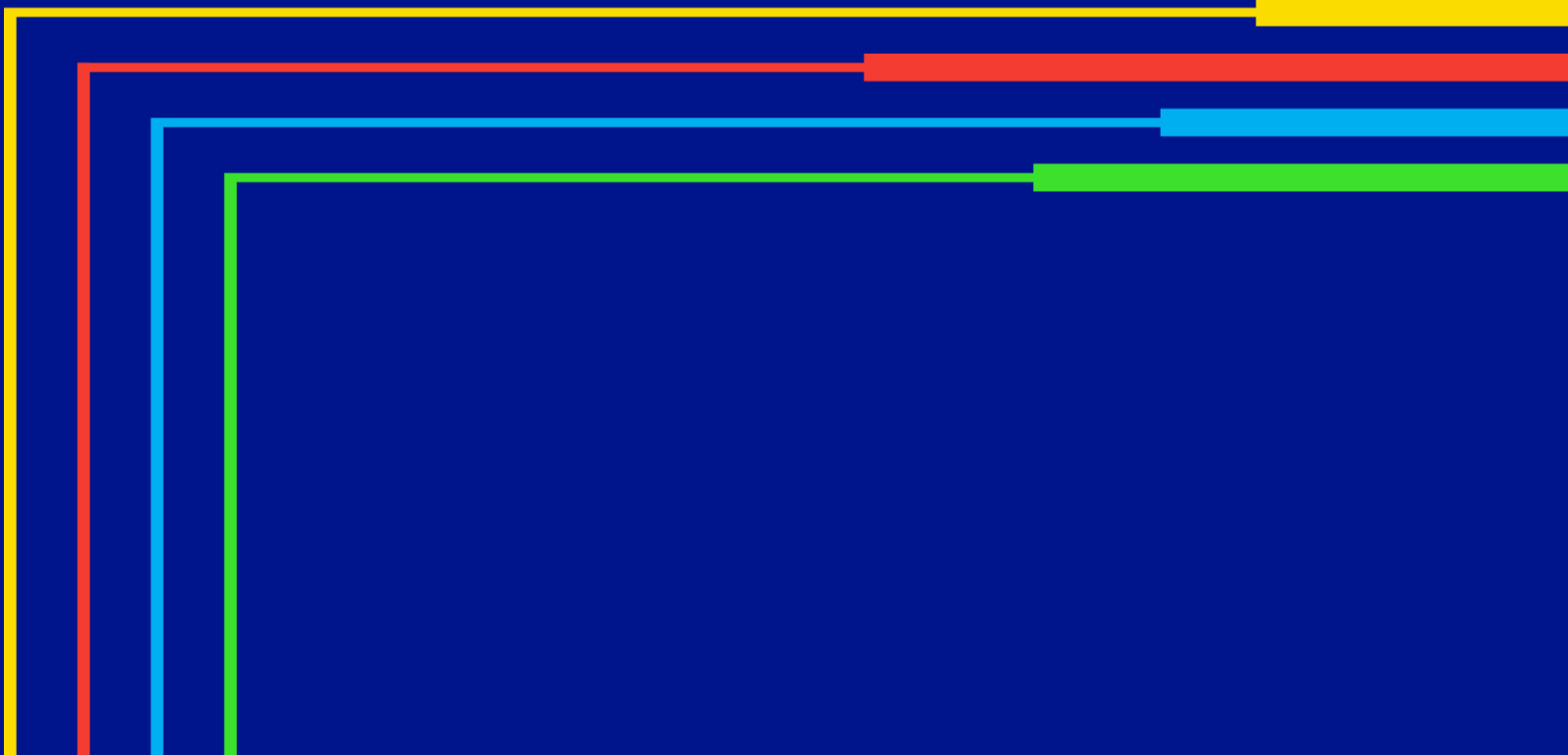


PEX Progress (As of 3/19/24)					
Key Performance Indicators	Goal	Paid (2023)	P(%G)	Paid (2024)	Paid/Pipeline (2024)
Electric Savings (NLT MWH)	157,360	107,813	69%	8,755	162,100
Gas Savings (NLT Therms)	2,202,009	811,632	37%	62,167	1,162,000
Electric Electrification (NLT MMBTu)	12,345	9,172	74%	384	18,150
Gas Electrification (NLT MMBTu)	35,445	80,405	227%	6,134	60,225

06

Quick Hits and Reminders

Mathew McCarthy Mathew.McCarthy@nationalgrid.com



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Quick Hits – Reminders

Upcoming Trainings

- Mass Save events and trainings can be found [here](#).
- The ASHRAE Guideline 36: Best in Class HVAC Control Sequences training is scheduled for Thursday, March 21 from 1-4PM. This will be a free online session. Registration info can be found [here](#).
- **Networked Lighting Controls Trainings:**
 - April 2 at Eversource in Westwood, MA from 8am–3pm: Introduction to Networked Lighting Controls Training, [register here](#)
 - April 3 at National Grid in Hopedale, MA from 8am–3pm: Introduction to Networked Lighting Controls Training (repeat of April 2nd offered in a different location), [register here](#)
 - April 4 at National Grid in Hopedale, MA from 8am–3pm: Intermediate Networked Lighting Controls Training, [register here](#)
- **Supply New England is hosting 2 refrigerant training sessions in Needham, MA. The Understanding New A2L Refrigerant Requirements session will be held on Wednesday, April 10th from 3-5pm and the EPA Section 608 Handling Refrigerant session will be held on Wednesday, April 16th from 8am-4PM. The April 10th session is \$60/person and includes dinner. The April 16th session is \$120/person and includes lunch. To sign up, contact the Needham branch at 508-779-1066 or email training@supplyne.com.**
- **NEBFM 2024 - The 18th Annual [Northeast Buildings & Facilities Management Conference](#) is scheduled to take place April 23rd & 24th at the DCU Center in Worcester, MA. If you are interested, please click [here](#) to register.**

Quick Hits – Reminders

Commercial Heat Pump Application Reminder

- **Commercial Heat Pump Application Reminder** – All PEXs should be using the National Grid 2024 Commercial Heat Pump Application for LCI/Muni heat pump projects. PEX apps will all be processed by National Grid (NO THIRD PARTY). If you are doing any heat pump projects in National Grid territory and National Grid is issuing the rebate, please work with your sales rep to get the rebate processed. If you do not know who your rep is, please reach out to me and I will connect you.

PEX InDemand Applications

- **All PEX Gas Applications and Associate PEX Applications** – If you are submitting a gas application or if you are an associate PEX, please note your PEX status when emailing your National Grid sales rep applications and associated documentation. This will help ensure the application is entered as a “PEX” application so it will show up in our PEX reporting.
- **InDemand Project Entry** – Please be advised that there has been a recent update to InDemand. As a result, new applications will require populating the “QA Reviewer” field. If you are a lead PEX, please select Jean Mangini (mangin) as the QA reviewer on all electrical PEX applications.

PEX 1:1s

- **Contact Mat to schedule your 1:1**

Quick Hits – Reminders

Green Communities Updates

- **Key dates/deadlines for Green Communities (GC) are available [here](#).**

New PEX Program Employees

- **Background Check**
 - New PEX employees require Level 2 background checks (with 4-panel drug screening) if they have direct contact with National Grid customers on their property and/or access National Grid database. Contact Accurate Background checks for more details.
- **Distribution List**
 - Contact Mat to be added to the PEX distribution list to receive meeting invites, training notices, newsletters, etc.
- **InDemand Training**
 - Contact Mat to coordinate InDemand training as needed.

PEX Survey Results

- **Thank you to everyone who participated in the 2024 Project Expediter survey. The survey is now closed, and we appreciate your valuable feedback. The results of the survey will be presented during the April PEX meeting.**

07

Looking Forward – 2024 Meeting Dates

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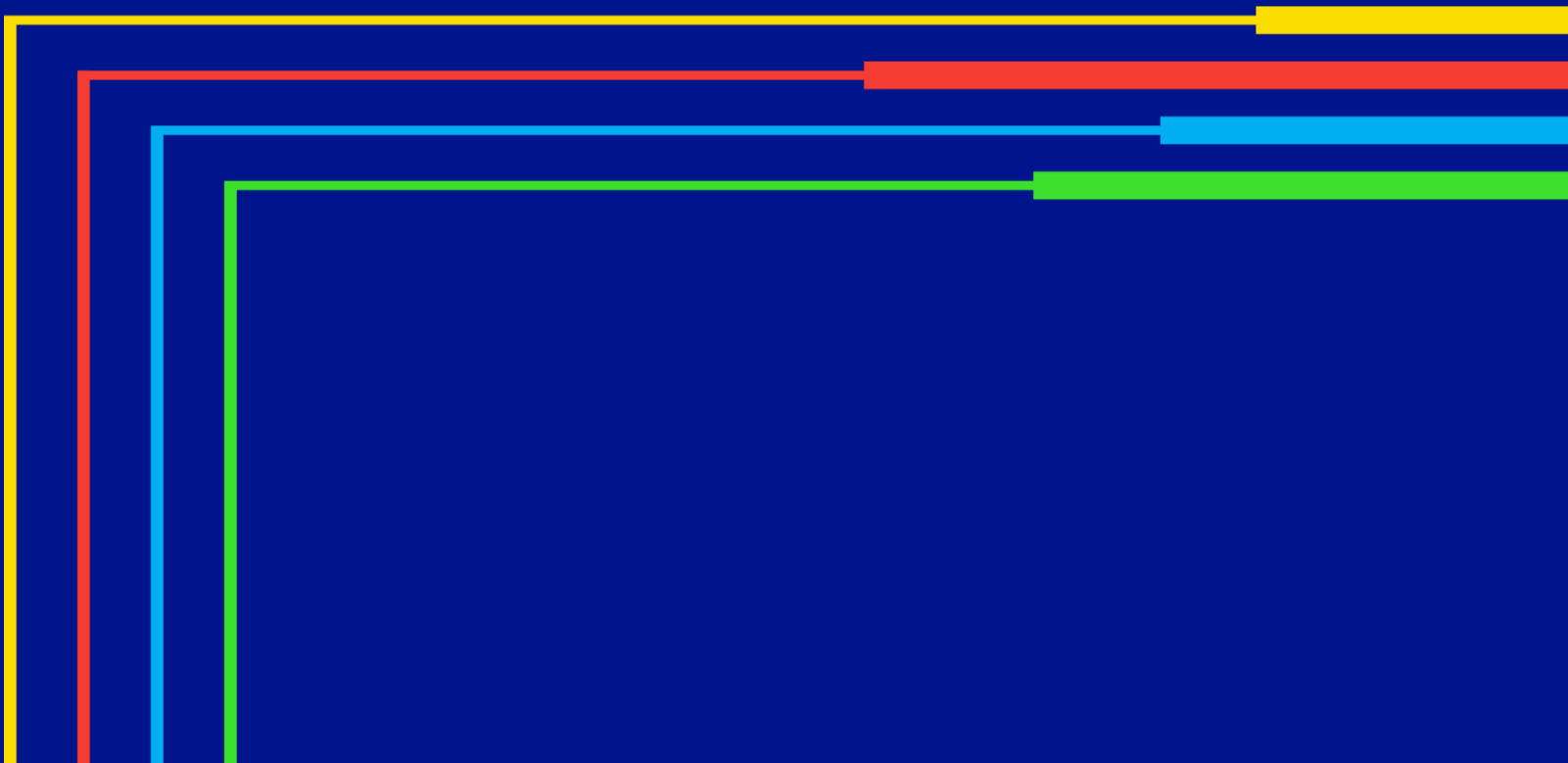
2024 Meeting Dates

Meeting Schedule

- ~~April 17~~ April 16, 2024 (Tuesday In-Person)
- May 22, 2024
- June 26, 2024
- July 24, 2024
- August 21, 2024
- September 18, 2024
- October 23, 2024
- November 20, 2024

Thank You!

Be Safe



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