Project Background

- US Department of Housing & Urban Development (HUD) launched the Rebuild by Design Competition in 2013, in response to Hurricane Sandy
- *Hunts Point Lifelines* was selected; a total of $45 million was awarded to advance resiliency concepts from the proposal
- The City convened an Advisory Working Group to identify resiliency concepts to study and implement projects on (1) Energy Resiliency (*funded pilot project*) and (2) Flood Risk Reduction.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2012</td>
<td>Hurricane Sandy</td>
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<tr>
<td>2013</td>
<td>HUD launches Rebuild by Design (RBD) to help communities become more resilient</td>
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<tr>
<td>2014</td>
<td>“Hunts Point Lifelines” submitted to RBD Competition</td>
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<tr>
<td>2015</td>
<td>Lifelines awarded $20M by HUD to further study &amp; develop a pilot project</td>
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<tr>
<td>2015</td>
<td>NYC provides additional $25M for Hunts Point</td>
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<tr>
<td>2016</td>
<td>EDC &amp; Mayor’s Office of Recovery &amp; Resiliency form Hunts Point Advisory Working Group (AWG)</td>
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<tr>
<td>2016</td>
<td>AWG recommends the City pursue a project focused on Energy &amp; Coastal Resiliency</td>
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<tr>
<td>2016</td>
<td>Hunts Point Resiliency project launches</td>
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On April 22nd, 2015, Mayor Bill de Blasio released a new long-term strategic plan to address our most pressing challenges.

This plan builds on existing efforts and strengthens and expands the City’s commitment to a multilayered approach to resiliency.

Our Resilient City

- **Neighborhoods**: Every city neighborhood will be safer by strengthening community, social, and economic resiliency.
- **Buildings**: The city’s buildings will be upgraded against changing climate impacts.
- **Infrastructure**: Infrastructure systems across the region will adapt to enable continue services.
- **Coastal Defense**: New York City’s coastal defenses will be strengthened against flooding and sea level rise.
The Hunts Point Resiliency Project will result in the implementation of a Resilient Energy pilot project and the identification of feasible Flood Risk Reduction projects for which to seek additional funding.

The Hunts Point Resiliency Project seeks to advance solutions that:

- Address critical vulnerabilities for both community and industry
- Protect important citywide infrastructure
- Protect existing and future industrial businesses and jobs
- Support the community’s social, economic, and environmental assets
- Use sustainable, ecologically sensitive infrastructure
Project Timeline

Deliverables

1. Existing & Vulnerable Conditions Findings
2. Screened Project Options
3. Feasibility Assessment for 5 flood options and 5 energy options
4. Identified Energy Resiliency Pilot Project(s) and Implementation Schedule
5. Design Basis Document for Pilot Project(s)
6. Draft Environmental Assessment
7. Final Environmental Assessment
8. Findings of No Significant Impacts/Negative Declaration

* The first meeting of the AWG will be held on May 22, 2016, prior to the start of this timeline.

** HUD Timeline Obligations: Selected Pilot Project and Completed BCA by March 2017
Meeting Today

1. Desired outcomes
2. Key vulnerability findings
3. Group discussions
   - Critical facilities
   - Consequences
   - Project options
4. Stakeholder engagement
One goal of this study is to address critical vulnerabilities for both community and industry. Based on a vulnerability assessment, the key findings are:

1. Building-level power outages are a significant and shared threat to residents and businesses in Hunts Point.

2. Due to considerable elevation change, the low-lying industrial areas face significant threats from coastal flooding while the upland residential area does not.

3. Extreme rain/snow storms are not a major threat in Hunts Point.

4. The number of community organizations and history of organizing in Hunts Point can lay the foundation for strong social resiliency.
Building-level power outages are a significant and shared threat to residents and businesses in Hunts Point.
Key Finding #1: Building-level Power Outages

Almost all residential buildings in Hunts Point are outside of the floodplain.

**BUILDING VULNERABILITY FACTORS**

- Location within floodplains
- Basement below grade and in floodplain
- Age of infrastructure
- Location of boiler, mechanicals, and electrical service
- Elevators
- Water tank
- Backup generation capacity
- Perishable contents
Key Finding #2: Coastal Flooding

Due to considerable elevation change, the low-lying industrial areas face significant threats from coastal flooding while the upland residential area does not.
Key Finding #2: Coastal Flooding
Extreme rain/snow storms are not a major threat in Hunts Point.
This precipitation flooding analysis assumed surface conditions only, and not the sewer system that would drain the area, to produce maximum depths of potential ponding.
The number of community organizations and history of organizing in Hunts Point can lay a foundation for strong social resiliency.
Key Finding #4: Building on Social Resiliency Assets
### Summary of Vulnerabilities and Strengths

<table>
<thead>
<tr>
<th><strong>Vulnerabilities</strong></th>
<th><strong>Strengths</strong></th>
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<tbody>
<tr>
<td><strong>Residential</strong></td>
<td></td>
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<tr>
<td>▪ Lack of back-up generation</td>
<td>▪ High ground</td>
</tr>
<tr>
<td>▪ Limited access to cooling centers</td>
<td>▪ Community assets</td>
</tr>
<tr>
<td>▪ Socioeconomic factors</td>
<td>▪ Low- and mid-rise buildings (which are not vulnerable to loss of water during prolonged power outages)</td>
</tr>
<tr>
<td><strong>Industrial</strong></td>
<td></td>
</tr>
<tr>
<td>▪ Old, critical transformers and electrical systems</td>
<td>▪ Loading docks create opportunities for elevation</td>
</tr>
<tr>
<td>▪ Location in floodplain</td>
<td>▪ Initial investments in backup generation</td>
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<tr>
<td>▪ Perishable products</td>
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</tbody>
</table>
Resiliency and Critical Facilities

Critical Facilities
LARGE GROUP DISCUSSION:
WHAT 3 PUBLIC PLACES DO YOU, FAMILY MEMBERS, FRIENDS OR CO-WORKERS REGULARLY USE THAT MIGHT BE A GATHERING POINT IN THE EVENT OF AN EMERGENCY (FOR ASSISTANCE, SOCIAL CONNECTION, INFORMATION)?
WHAT ARE THE CONSEQUENCES OF DIFFERENT THREATS TO THESE PUBLIC PLACES?
Preliminary Project Technologies

Resilient Energy

- Backup generation/storage
- Microgrids (building/facility scale)
- Anaerobic digestion
- Fuel cells

- Combined heat and power (CHP)
- Tidal power
- Building level retrofits
- Electrification of trailers
Preliminary Project Technologies

Coastal Flood Risk Reduction

- Levees
- Floodwalls
- Elevating building
- Elevating critical equipment
- Building floodwalls
- Deployable pumps

Additional Elements For Consideration in Combination with Flood Risk Reduction Technologies:

- Stormwater retrofits
- Backflow prevention
- Green infrastructure
- Shoreline stabilization
## Project Options Screening Criteria

### ENERGY RESILIENCY PROJECT OPTION 1

**ROOFTOP SOLAR PV (FOR EXAMPLE)**

**Information to be included here:**
- General description of technology
- Maximum energy supply/power provided
- How will technology address a real vulnerability in Hunts Point?
- Potential locations

### RESILIENCY

| Applicable to Vulnerable, Critical Facilities | PASS | NEUTRAL | FAIL |
| Scalable | PASS | NEUTRAL | FAIL |
| Proven Technology | PASS | NEUTRAL | FAIL |
| Reliable Technology | PASS | NEUTRAL | FAIL |
| Dispatchable/Operable during Emergencies | PASS | NEUTRAL | FAIL |

### SUSTAINABILITY

| Energy Efficient | PASS | NEUTRAL | FAIL |
| Clean Fuel Type | PASS | NEUTRAL | FAIL |
| Air Emissions Benefit | PASS | NEUTRAL | FAIL |

### IMPLEMENTATION SCHEDULE

| Schedule (in Years) to Plan, Design & Construct | PASS | NEUTRAL | FAIL |

### CONSTRUCTABILITY

| Available & Suitable Space | PASS | NEUTRAL | FAIL |
| Required Infrastructure (gas, water) | PASS | NEUTRAL | FAIL |
| Ease of Permitting | PASS | NEUTRAL | FAIL |

### COMMUNITY BENEFITS

| Workforce Development (hiring and training) | PASS | NEUTRAL | FAIL |
| Multi-purpose (educational, recreational, or social) | PASS | NEUTRAL | FAIL |
| Potential to Leverage Public or Private Funds | PASS | NEUTRAL | FAIL |

### FINANCIAL

| Cost to Construct ($/KW) | PASS | NEUTRAL | FAIL |
| Cost of Generation ($/MWH) | PASS | NEUTRAL | FAIL |
WHAT INFORMATION CAN WE PROVIDE SO THAT YOU CAN UNDERSTAND DIFFERENT PROJECT TYPES?

ARE THERE IDEAS FOR OTHER KINDS OF PROJECT OPTIONS TO CONSIDER?
The rings of engagement for Hunts Point Resiliency illustrate how specific teams are embedded within others for communications flow and to fulfill different functions. The graphic is not intended to represent decision-making.
Engagement Strategy Team: 7 Suggestions

1. Focus on real outcomes and the timeline for making things happen.
2. Make sure we have an answer to this question for anyone we engage – “Why does this matter to me?”
3. Help people understand limits on grant money and the City’s commitment to bring more money into the community.
4. Make sure that, whichever project gets selected, protects people and not just buildings.
5. Talk about risks but also strengths of the community and what we are already doing in Hunts Point.
6. Look for opportunities to engage new leadership in the Hunts Point community.
<table>
<thead>
<tr>
<th>Date and Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 17, 6:00-8:00</td>
<td>Evaluation of project options</td>
</tr>
<tr>
<td>March 21, 6:00-8:00</td>
<td>Identification of pilot project</td>
</tr>
</tbody>
</table>
Staying in Touch

- Website – [www.huntspointresiliency.nyc](http://www.huntspointresiliency.nyc)
- Email - [Huntspointsresiliency@edc.nyc](mailto:Huntspointsresiliency@edc.nyc)
- Social media (Twitter and Instagram)
  - EDC @NYCEDC
  - ORR @NYClimate
- Regular mail
  - New York City Economic Development Corporation
    Attn: Charlie Samboy
    110 William Street
    New York, NY 10038