Introduction / Goals:

The OGC Energy and Utilities Domain Working Group brings together market participants and geospatial solution providers, to identify requirements, help inform and advance interoperable OGC standards.

The OGC Energy & Utilities Summit, hosted by EPRI in Charlotte, North Carolina, December 2018, will focus on identifying market requirements in the energy and utilities domain. The Summit brings together leading experts to share world-class research and examples demonstrating the benefits of interoperable geospatial standards. Participants will identify pain-points and how standard encodings can be advanced or implemented to support smarter energy utilities, communities, and networks.

This work is especially important for three global reasons: helping to ensure reliable energy supply, economic sustainability, and meeting climate change objectives, though these vary across regions.

Definitions:

- **Smart Energy Utilities** recognize the full potential of integrated energy systems and harnessing energy data to meet goals of reliability, affordability, and climate change objectives.
- **Smart Energy Communities** use energy data to improve energy efficiency, cut costs, and reduce greenhouse gas (GHG) emissions, while simultaneously improving resilience.
- **Smart Energy Networks** are the bedrock of 'smart energy utilities' and 'smart energy communities'. E.g. Smart Grids, Pipeline Systems, District Energy, Microgrids, City Utilities, and related applications.

Who will attend:

This event brings together thought leaders, experts in the energy & utilities domain, world-class researchers, as well as participants from Utilities, Government, Service Providers and Geospatial Solution Providers many of whom are OGC members.

Summit Co-Chairs:

Eddie Oldfield, QUEST eoldfield@questcanada.org
John Simmins, EPRI jsimmins@epri.com

Preliminary Agenda

SESSION ONE – *Setting the Stage*

Duration: 1hr 45m (start at 10:15 a.m.)

1. **Welcome and Introductions** (led by Co-Chairs) – 10 minutes
2. **Goals and Objectives of the Summit** (Co-Chair) – 5 minutes
3. **Background:** OGC E&U DWG, 2017 Summit & Energy Data Roadmap (Co-Chair) – 15 minutes
4. **Role of OGC Standards**, DWG/SWG work, Interoperability Program (Scott Simmons, OGC) – 15m
5. **Keynote speaker: EPRI – Mark McGranaghan, VP.** – 30 minutes
6. **Group discussion, Q&A, Recommendations** - 30 minutes

LUNCH

SESSION TWO – *Building Smart Energy Utilities of Today and Tomorrow*

Duration: 1hr 20m

DESCRIPTION: This panel session is focused on the needs of utilities, both today and into the future. With a focus on the priorities of transitioning utilities, panelists will share examples of 'Smart Energy Utilities', identify needs and put forward questions or recommendations to the geospatial standards community. Two areas of particular interest are: Data exchange and coordination between utilities, and items related to the digital transformation of business processes within utilities. Panellists each have 15 minutes to present, followed by group discussion.

1. **Speaker/Panelist 1** – Location Technology in Utility Infrastructure,
   Carsten Rönsdorf, Ordnance Survey
2. **Speaker/Panelist 2** – Connectivity Model Management, Pat Browne, EPRI
3. **Speaker/Panelist 3**– Data Sharing Governments & Utilities, Scott Sternfeld, P.E., Agile Inclusion Inc.
4. **Speaker/Panelist 4** – Resiliency Research at EPRI, Kevin Berent, EPRI
5. **Speaker/Panelist 5** – Outage Data Initiative, EPRI and Oakridge National Laboratory
   Eagle Eye National Outage Map
6. **Group discussion, Q&A, Recommendations** (20 to 30 minutes)

BREAK

SESSION THREE – *The Road to Smart Energy Communities*

Duration: 1hr 20m

DESCRIPTION: This panel session is focused on the needs of Smart Energy Communities now and into the future. With a focus on the priorities of local governments, and their respective utilities, panelists will discuss what is needed for Smart Energy Communities to come to life, share examples, and put forward questions or recommendations to the geospatial standards community. Of particular interest is: data needs, exchange best practices, gaps and solutions. Panellists each have 15 minutes to present, followed by group discussion.

1. **Speaker/Panelist 1** – Community Energy Knowledge-Action Partnership, Ms. Rebecca Jahns, M.A. Candidate & Researcher, University of Guelph
2. **Speaker/Panelist 2** – Energy modeling in Australia, Simon Cox**,** CSIRO
3. **Speaker/Panelist 3** – CityGML Network Utilities ADE, CityGML Chair, Steve Smyth
4. **Speaker/Panelist 4**: – OGC and BuildingSMART: BIM-GIS, Carsten Rönsdorf, co-chair of the joint OGC/bSI committee
5. **Speaker/Panelist 5**: – Smart Cities DWG Chair *OR* QUEST – Smart Energy Communities (tba)
6. **Group discussion, Q&A, Recommendations** (20 to 30 minutes)

BREAK

SESSION FOUR – *Approaches to Network Models and Interoperability*

Duration: 2hr

DESCRIPTION: This panel will identify and discuss approaches to creating and integrating network models, and to consider the needs identified earlier today in prior panels. This panel will share examples of work, geospatial data and web service standards/models, identify pathways forward to advance interoperable geospatial (OGC) web encodings standards for interfaces, recommend actions to the OGC E&U DWG, and aim to set in motion efforts to pilot/document standards which solve market needs in energy & utilities domain. Panellists each have 15 minutes to present, followed by group discussion.

1. **Speaker/Panelist 1** – LandInfra DWG, Trimble, Leif Granholm; LandInfra SWG, Hans-Christoph Gruler, CHHER/Central/Leica.
2. **Speaker/Panelist 2** – Coupling 3D city models with utility networks using the CityGML Utility Network ADE, Tatjana Kutzner, Technical University of Munich
3. **Speaker/Panelist 3** – MUDDI: underground data model including energy & utility data, Josh Lieberman, OGC
4. **Speaker/Panelist 4** – Neural networks for above ground asset management, John Simmons, and AI to identify underground facility assets, Jared Green, Technical Leader, EPRI
5. **Group discussion, Q&A, Recommendations:** next steps to advance standards work, recommendations for E&U DWG and to put forward to OGC TC on Friday. (20 minutes)
6. **Other E&U DWG business (time permitting) – planning for 2019** (10 minutes)
7. **Evaluation and Close**