openADR®
ALLIANCE

OpenADR Alliance Annual Report

2024

Executive Summary

This annual report highlights the successful growth and global adoption of the OpenADR standard in 2024, marked by an increase in worldwide membership, certified products being integrated into the market and the strategic expansion into new global market segments.

The OpenADR Alliance has had a number of key achievements this year including the launch of the OpenADR 3.0 certification program, a successful Users Conference and the strengthening of ties with other standards bodies and government/policy organizations.

Looking ahead we remain committed and well positioned to help utilities manage the growing pool of distributed energy resources, which includes renewable energy, energy storage, demand response and electric vehicle charging. Conversely, the Alliance also strives to enable new markets for its members by further harmonizing Demand Flexibility programs.
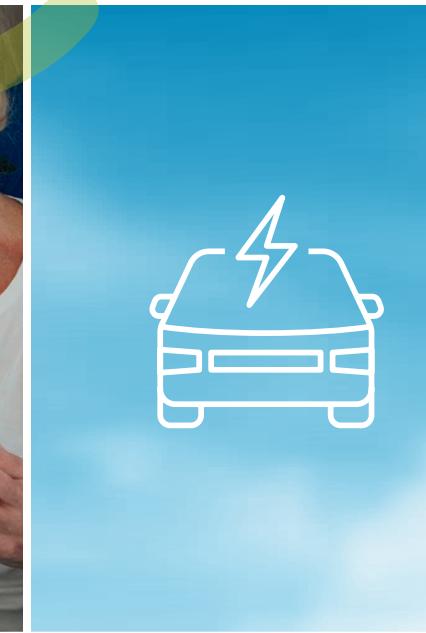
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About Us / Mission

The OpenADR Alliance, a non-profit corporation created to foster the development, adoption, and compliance of OpenADR and related standards, helps utilities manage the growing pool of distributed energy resources, which includes renewable energy, energy storage, demand response & flexibility, and electric vehicle charging. The OpenADR standard supports communications to all Distributed Energy Resources (DER) to manage changes in load shape, energy inputs and power characteristics of DER assets. The EcoPort standard additionally enables smart appliances to be connected.
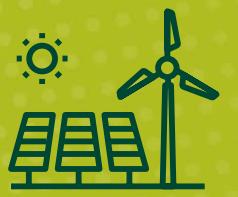
helps utilities manage the growing pool of distributed energy resources

The mission of the OpenADR Alliance is to foster the development, adoption, and compliance of the Demand Flexibility standards through collaboration, education, training, testing and certification.

Our Board of Directors

Mark Martinez
Chairman

SOUTHERN CALIFORNIA EDISON

Mary Ann Piette
Vice-Chairman

BERKELEY LAB

Albert Chiu
Secretary/Treasurer

PG&E

Sunil Goyal

Ford

Geoff Wickes

neea

The OpenADR Alliance ecosystem has traditionally been made up of control manufacturers and utilities.
Now we are also attracting members from the automotive and associated sectors.

2024 highlights

+319

Number of Certified Products now exceeds 319

openADR® | 3.0 CERTIFIED

First OpenADR 3.0 products in the certification queue and to be announced soon

18   5   17

40 new

The Alliance added **40 new members in 2024. Of those, 18 are in North America, 17 in Asia, and 5 in Europe bringing our total membership to over 220.**

12 industry events
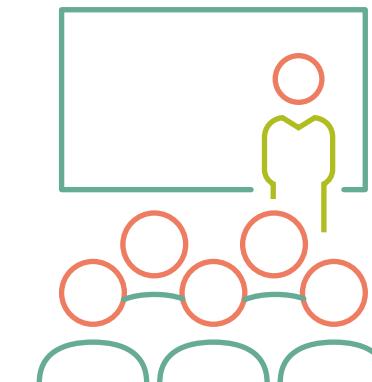
The Alliance participated in **12 Industry Events in 2024** with a mix of USA and Europe based events and one Australian tradeshow. For 2025, the Alliance is eager to also participate in events in Asia and is currently formulating a strategy for this.

2024

928

53

By the end of 2024, **928 companies from 53 countries downloaded the OpenADR specification**

2024 highlights cont'd

The Alliance hosted several Webinars and countless conference calls
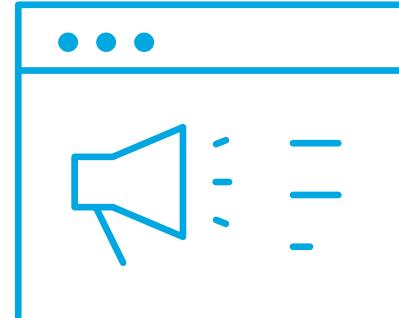
Published **17** industry blogs

EcoPort saw jump in certified products

Japan enacted additional OpenADR usage requirements
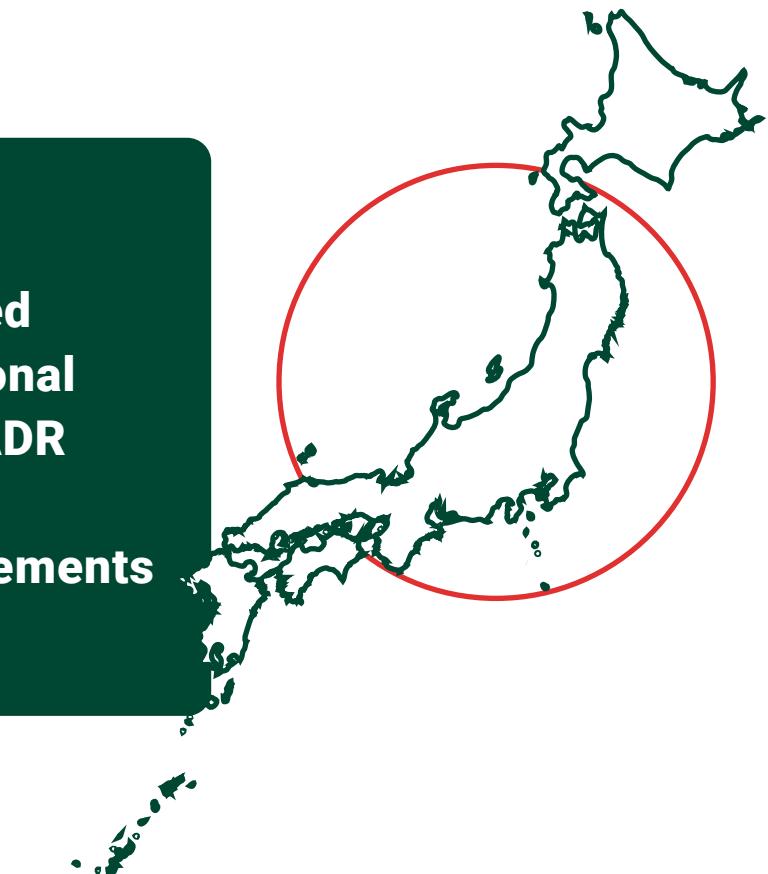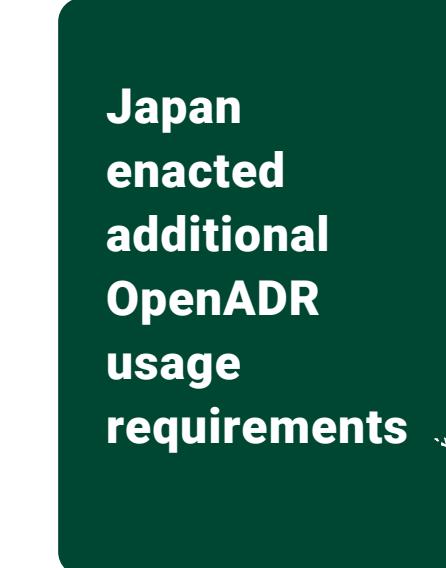
Several **European countries chose OpenADR 3.0** as their Demand Side Flexibility kick-off technology standard

California utilities are embracing **OpenADR 3.0 for new dynamic price communications**
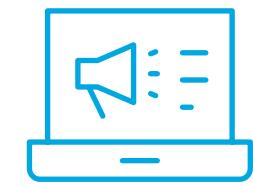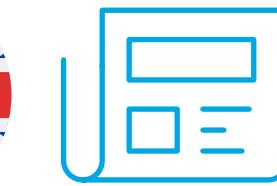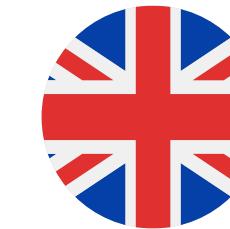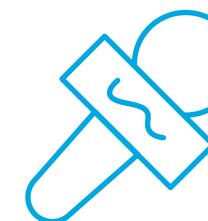
Raised OpenADR profile among journalists in the **UK and Germany** by securing over **60 pieces of news coverage**

Letter from our managing and technical director

Rolf Bienert
Managing and Technical Director

By today's count we added exactly 40 member companies and are now well over 200 members, we have over 319 certified products

Dear OpenADR Community,

I cannot believe that we are already at the start of 2025. It feels like we just returned from DISTRIBUTECH in Orlando which—together with AHR—was one of our first tradeshow appearances in 2024. However, it did become painfully obvious that we are nearing the winter months again as we walked from our hotel to the 2nd OpenADR Users Conference in London in a "refreshing" snow-rain shower.

Not surprisingly, the OpenADR 3.0 standard was one of our biggest behind-the-scenes work items this year (again). The first version of the standard was already completed over a year ago but like with any good new product, it took everybody a while to wrap their minds around all the new ideas. The certification test tool was also completed and will very soon be available for purchase. I am not going to sugar coat it, the way the new version works — REST API, JSON, OAuth 2, flexible business logic — still mystifies my "old" brain. I grew up with an Atari and C++ after all. But things are taking shape nicely now and adoption is rapidly increasing.

Overall it has been a great year for the OpenADR Alliance as well as for the adoption of the OpenADR standard. By today's count we added exactly 40 member companies and are now well over 200 members, we have over 319 certified products, and we are now working with 10 approved test facilities in eight countries. In addition, the Alliance's influence is expanding across Europe and the Middle East, with new members from the UK, Germany, Italy, Israel, Bulgaria, and the Netherlands.

Throughout 2025, we anticipate more growth with the availability of certification program for the OpenADR 3.0 standard ideal for distributed energy resources, such as battery storage, EV managed charging networks and Virtual Power Plants (VPPs).

Another focus area will be the growing need to connect appliances efficiently to the grid. In addition to OpenADR, the EcoPort certification (the certification standard for CTA-2045) continues being adopted by manufacturers and regulators.

Aside from the "business-as-usual" tasks, we are also working on formulating strategies around system conformance, flexibility asset tracking, and DER information exchange.

We look forward to the continuing success of OpenADR Alliance.

Global OpenADR Member Footprint

13 downloads
NORWAY 1
FINLAND 5 downloads
SWEDEN 25 downloads
UNITED KINGDOM 66
DENMARK 7
2 downloads **IRELAND** 1 1 **POLAND** 9 downloads
31 1 1 **RUSSIA** 2 downloads
4 **GERMANY** **CZECH REP.** 11 **UKRAINE** 1 download
1 **35** 4 **2** **2**
6 **AUSTRIA** **HUNGARY** 1
19 downloads **FRANCE** 9 **ROMANIA**
1 **ITALY** 1 **2** 1
PORTUGAL **4 downloads** 1 2 **TURKEY** 1
SPAIN 13 downloads 5
4 downloads **LEBANON** 1 download **IRAN**
ISRAEL 1
1 **SAUDI ARABIA** 1 **QATAR**
4 downloads

1 **PAKISTAN**

CHINA 4

1 1 **SOUTH KOREA** 1 **JAPAN** 9
1 23
1 **2** **59 downloads**
4 **Hong Kong** **TAIWAN**

1 **INDIA** **1 download** **BANGLADESH**
49 downloads
THAILAND 37 downloads

COLOMBIA 1 download

BRAZIL 2 downloads

ANGOLA 1 download

SINGAPORE

1 **CANADA** 54 downloads

17 **UNITED STATES** 284 downloads

U.S.

ARGENTINA **URUGUAY** 1 download
2 downloads

SOUTH AFRICA 2 downloads

AUSTRALIA 24 downloads

NEW ZEALAND 1 15 downloads

Legend

⊕ Zoom in for details

Number of New Members in 2024 by Country

Countries with 2024 Current Members

Countries with Lifetime Members

Countries with Lifetime & Current Members

Countries with 2024 Specification Downloads

Number of 2024 Specification Downloads

Global Adoption of the OpenADR Standard

In the US, OpenADR has been well known for managing flexibility assets for many years. California's Title 24 building code has required the standards since several years and the new version will also see additional ideas and use cases. [EnergyStar](#), the energy efficiency standard for appliances, now also includes references to OpenADR when it comes to grid connectivity. More and more utilities are rolling out new programs using OpenADR and we are also seeing increased EV activities with utilities by our board member company Ford Motor Company.

Outside of the US, the European market has seen the biggest increase in activities. In particular OpenADR 3.0 is of increased interest in new projects. The UK has been working on Energy Smart Appliances for several years and is just wrapping up their first end-to-end system evaluations. The next phase will be looking at OpenADR 3.0.

Recently the Energy Networks Association of the UK also specified OpenADR and has started a project to define the program parameters and implementation requirements. In the Netherlands we also see an effort to mandate standards like OpenADR and OCPP for EV charging applications. The Swedish branch of E.On also recently implemented a new 3.0 VTN.

As more governments and policy makers in Europe specify open standards as part of energy demand flexibility, new European members are also rolling out cutting-edge software and technology solutions to support several utility-led programs. In support of international activities, OpenADR 2.0b has been an IEC standard since 2018 and we are starting to look at an IEC pathway also for OpenADR 3.0.

More and more utilities are rolling out new programs using the OpenADR standard.

OpenADR Enabling Flexibility in New Zealand

New Zealand has committed to achieving net zero emissions by 2050 and a goal of reaching 100 percent renewable electricity generation by 2030. As the country embarks on an ambitious energy transition, it has many natural advantages, including a strong renewable resource base.

In 2022, the Electricity Engineers' Association (EEA) and the Energy Efficiency and Conservation Authority (EECA) came together with industry partners to form the FlexTalk (Demand Flexibility Common Communications Protocol Project). OpenADR member company [Cortexo](#), based in New Zealand, had a key role as a 'technical lead' providing the knowledge and technology to implement the technical solution.

The main objective of the project was to explore how to better enable customer flexibility to

be utilized by testing the interoperability of a two–way common communication protocol between an electricity distribution company and flexibility supplier. The program successfully trialed seven custom demand management programs using OpenADR for household EV charging and battery management, including price discovery and price bidding programs as well as emergency and dynamic operating envelope signals. The trial report was released recently.

The FlexTalk Report (PDF): The demand flexibility common communication protocols project final report outlines why demand flexibility is so important, what is happening internationally, what was tested, what was found and what the project's recommendations are.

The FlexTalk Insights (PDF): OpenADR technical insights provide more technical detail of the FlexTalk program design and guidance on implementation approaches for the OpenADR protocol.

The adoption of OpenADR in New Zealand is still in its early stages. However New Zealand continues to explore how Flexibility markets may work and aggregators may bundle services that offer DER to various parties.
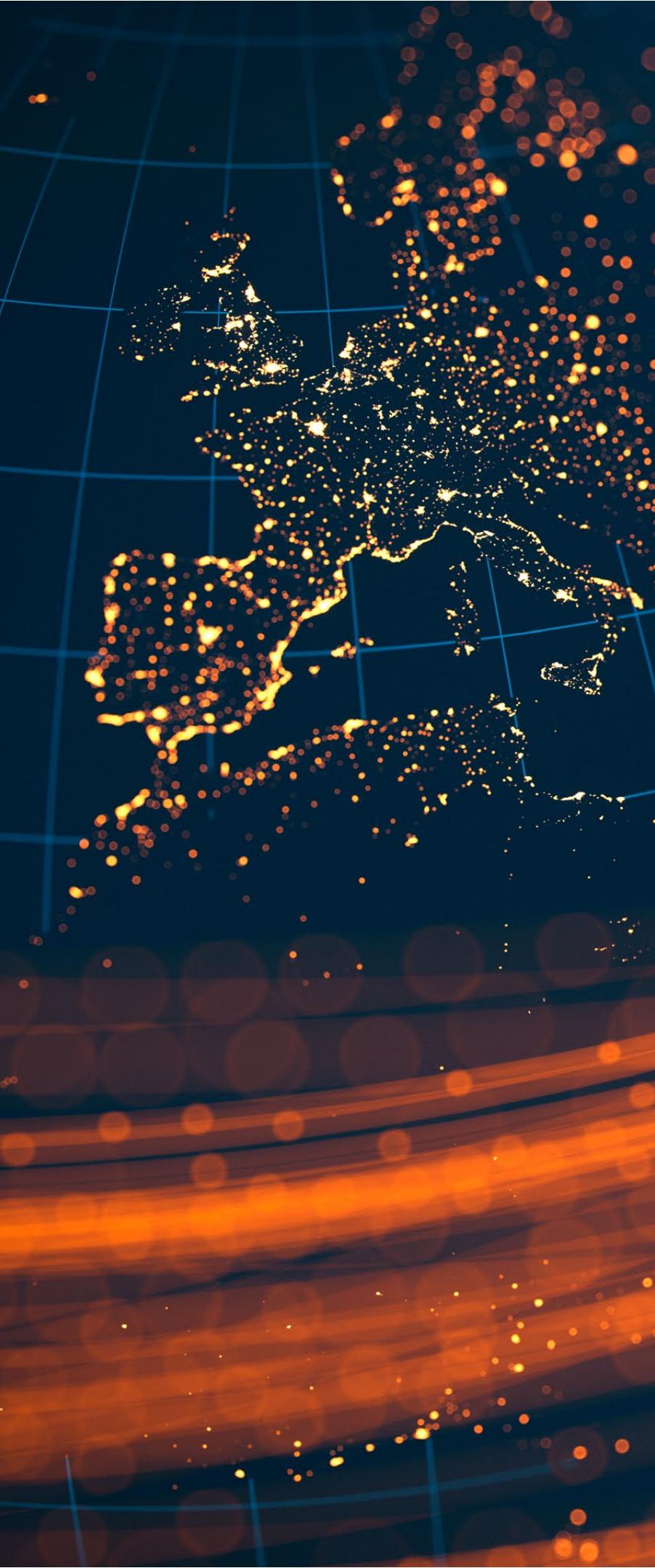
Industry Partners

In Europe, the OpenADR Alliance is strengthening ties with other standards bodies and government/policy organizations. This includes the UK's Department of Energy Security & Net Zero (DESNZ), which has written OpenADR into two BSI standards, EEBUS in Germany, and Smart Energy Europe (smartEn), which lobbies for energy flexibility as part of the transition to clean energy. **Learn more here.**

Standards are evolving all over the world, learning from implementation and joining up all the actors is key to enabling stable and reliable flexibility.

Evolving the OpenADR Standard

With the latest release of the OpenADR 3.0 communications standard and certification program the Alliance can support a broader range of distributed energy resources to better optimize energy storage for residential customers using OpenADR standards.

The OpenADR 3.0 Standard is not intended to replace the OpenADR 2.0a/b Profile Specifications. Rather, it provides an additional, simplified way to add OpenADR functionalities in current, as well as different and new scenarios.

On the surface the main difference between the 2.0 and the 3.0 standards is the programming language (now JSON) and the architecture as a REST API. Many of the general functions remain the same, for example the Event and the Report service. However, there is one key difference that makes OpenADR 3.0 more adoptable — the removal of what we call the business logic.

In 2.0 there was a clear mandatory message exchange pattern. This essentially defined the business logic. As a REST API, 3.0 now leaves the business logic to the application layer entirely. Therefore, we can propose and implement different business mechanisms using the same underlying standard. This makes it much easier to implement simplistic programs like price communication for dynamic rates. The VEN in such a case can be very rudimentary, just a few lines of code to read the price from the server. This enables OpenADR 3.0 to be easily implemented in all types of systems and devices, for instance also in a **Matter** gateway. This makes OpenADR more accessible for a broader range of implementations. The certification will also be simpler and more cost effective. We are now seeing the first efforts for price comms via 3.0 by the leading California utilities SCE and PG&E.

Showcasing the new developer friendly aspects of OpenADR 3.0, the Alliance recently held a **Hackathon** hosted by board member PG&E in California. The event was well received and the 20 participating developers demonstrated great knowledge of the standard. It was also interesting to see the usage of AI to easily build software products surrounding OpenADR.

"Ford supports open standards as a way to overcome interoperability challenges in young but maturing markets—like what we have today for Vehicle Grid Integration. This aligns well with OpenADR's mission."

According to Sunil Goyal,
Advance Project Leader—Energy Service, Ford Motorr

EcoPort — Connecting the Consumer to the Grid

The OpenADR Alliance is playing a key role supporting smart appliances in the USA.
EcoPort® is the brand name associated with CTA–2045 certified products. CTA–2045 is a technical standard promulgated and published by the Consumer Technology Association (R7.8 Modular Communication Interface for Energy Management Subcommittee.) Compliance means that a product has been submitted to the EcoPort certification program (operated by the OpenADR Alliance, which also operates a certification for t he separate OpenADR standard, IEC 62746–10–1.) Smart appliances are being used in energy flexibility programs operated by DSO's, and EcoPort enables OpenADR messages to flow to appliance owners while allowing DSOs to use communications (WiFi, cellular) of their choice.

In the US, several states now require all new electric storage water heaters sold in the state to include a CTA–2045 communications port. The large California market has also announced a rulemaking incorporating both EcoPort and OpenADR in appliance requirements.

Certified EcoPort Products

The large California market has also announced a rulemaking incorporating both EcoPort and OpenADR in appliance requirements.

The Journey to E-mobility

The rapid growth of the electric vehicle market has spurred cooperation between automotive OEMs and the electric utility industry. EV's represent a once–in–a–generation transformation on both the automotive and the utility side. We are already seeing a significant number of EV charging programs using OpenADR and often also OCPP. The industry is still developing, and we are expecting more innovation to happen .

Aside from the basic communication protocol, EV charging includes a number of systems. From the actual plug to the customer interface, these systems must become more standardized in their roles and interactions to provide a customer friendly and scalable solution for the future.

The Electric Power Research Institute (EPRI) envisioned this several years ago. They collaborated with a number of car makers — Ford, BMW, General Motors, Honda, Mercedes Benz, and Toyota — in order to conceptualize a common set of interfaces. It was referenced as the **Open Vehicle-Grid Integration Platform**, OVGIP for short. Ford and several others in recent years productized this platform and successfully rolled it out with more than 5 utilities. OpenADR is the protocol for grid services in OVGIP.

This year, **ChargeScape**, a consortium of some of the biggest names in automotive manufacturing has appointed its first CEO and CTO. Spearheaded by Alliance Board member, Ford Motor Company, along with BMW Manufacturing Co., Honda and Nissan Motor Corporation, the joint venture will focus on the integration of electric vehicles (EVs) into the power grid in the US.

The OpenADR Alliance is pushing for more system standardization around OVGIP, including a customer facing certification mark. The initial efforts are ongoing. We are convinced that this is a vital activity for scalability in the future as we are otherwise facing a fragmentation of the systems with a many associated downsides for customers, utilities, and equipment makes alike.

> *EV's represent a once–in–a–generation transformation on both the automotive and the utility side.*
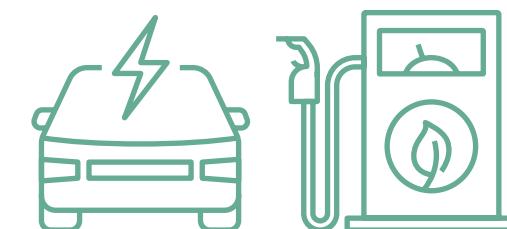
VPP Growth

A key current driver is the emergence of ever dropping battery storage costs, increasing the capability of Virtual Power Plants as grid resources. First generation implementation for OpenADR in the VPP market was through rooftop solar and storage. Today we are seeing more harmonizing cross–DER integration. Companies are now developing EV charging management systems that support flexible pricing, solar system integration, and AI–based predictive load balancing.
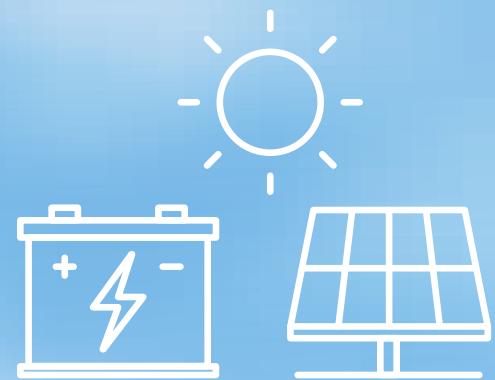
Battery storage: Renewable, Decarbonzation

Demand Side Management (DSM) programs (aka DR, DER, or Flexibility) make use of available capacity in homes, companies, car fleets, and other systems. This capacity can be provided by reducing the power consumption (curtailment in classic DR programs) like changing air conditioning and heating settings, stopping appliances and other systems, etc. However, capacity can also be made available using managed renewables in connection with batteries, up and down regulation of battery chargers (EV), and controlled discharging of batteries, both in fixed or vehicle systems. In particular vehicle fleets represent a significant capacity for short–term usage.

The OpenADR standard has supported this type management since over a decade with a multitude of installations worldwide. OpenADR messages in most cases provide objectives to customer owned system to trigger a response. These messages can contain variable prices or more specific energy requests. Any and all available capacity can be managed easily and without disturbing the grid controls in this way.

Virtual Power Plants (VPPs) are a smart, clean and cost-effective way to manage electricity supply and demand on an evolving energy grid.

Membership

Promoter members

Berkeley Lab

Southern California Edison

Ford

neea

PG&E

Contributor members

AMPECO

4energy Ltd

75F

A.O. Smith Water Products Company

ABB Bailey Japan Limited

ABB S.p.A.

ACMEPOINT ENERGY SERVICE Co., Ltd.

Acuity Controls

AcuityBrands

AddEnergie

Ademco Inc – Resideo Grid Services

ads-tec Energy GmbH

AEP

AI–RIDER Corp.

Airzone — Corporación Empresarial Altra

ajdvhad

Ambi Labs Limited

AMG Solution inc

AMITEK

Ampcontrol Technologies, Inc.

AmpedUp! Networks, LLC

ampUp

ANCLAB CO,.LTD

Apparent Inc.

Ariston Group

ATEN International Co., Ltd.

Austin Energy

Autani, LLC

Autel US Inc.

AutoGrid

Automated Logic Corporation

Avi-on Labs, Inc.

Azbil Corporation

Basari Mobile Co.

BC Hydro

Bellawatt

Blink Charging Co

Blue Pillar, Inc.

Blueprint Power Technologies LLC

BP Pulse Fleet North America , Inc.

Braeburn Systems LLC

British Columbia Institute of Technology (BCIT) — Applied Research — SMART Department

Budderfly LLC

Builddie

Buzze Inc.

Byucksan Power Co., Ltd.

CACTUS

CarMedialab GmbH

Carrier Corporation

CastleOS Software, LLC

CCIC–CSA International Certification Co., Ltd. Kunshan Branch

CEIVA Logic, Inc.

ChargeLab

ChargePoint, Inc.

Chargie

Chichibu PPS K.K.

Chunghwa Telecom Co., Ltd.

Cielo WiGle Inc.

CleanSpark

Codibly

Coil Winding Specialist, Inc.

Colmac Waterheat inc.

Computime Ltd.

Connected Energy [former BPL Global LLC]

Constellation Energy

Control Dynamics

Cooper Power Systems

Cortexo

CPower Energy Management

CrossChasm

Cuculus GmbH

Curoo

Customized Energy Solutions

CyberSwitching, Inc.

Daikin

Daintree Networks, Inc.

dcbel Inc.

Delta Networks(Xiamen)LTD.

Dialight

DigiKoo GmbH

DIGITAL GRID Corporation.

DNV GL

Doosan

Driivz Ltd.

E-Gear, LLC

e-Power Solutions Co.

Earth Networks

Eco Automation

Eco2 Systems LLC

ecobee

EcoFactor

Ecogy Energy

EIPGRID Inc. (formerly I-ON Communications Co., Ltd.)

ElecONE Inc.

Electric Era Technologies

Electric Motor Werks, Inc

Electric Power Research Institute, China Southern Power Grid

Electricity Generation and Retail Corporation trading as Synergy

Electriq Power

Electrosem LLC

Elocity Technologies Inc.

Embertec USA LLC

Emerson–White Rodgers

Encored

Encycle

Enel X [EnerNOC / Electic Motor Werks]

Eneres Co., Ltd.

Energport Inc.

EnergyHub

Enernet

EnerNOC Inc.

Enersponse

EnerSys

Enestone

Engie Storage [former Green Charge Networks]

EnjoyElec

Enlighted Inc

EnPowered

EnTouch Controls

Epic Charging

EPSA [former CELSIA]

eSmart Systems

ESP

Essency

EV Connect, Inc.

EV Range

EVBox (formerly Everon former EVBox BV)

EverCharge

EvGateway

EvoCharge

Evoke Systems

EVPassport

Exergy Controls

Faberwork, LLC

Far EasTone Telecommunications Co., Ltd.

Fermata Energy

Flipturn

Fortress Power

FranklinWH Technologies Co., Ltd.

FreeWire Technologies

Fuji Electric Co., Ltd.

Fujitsu Limited [also Labs of America]

GD Midea Air-Conditioning Equipment Co., Ltd.

GE Appliances

GE Vernova

Generac Grid Services LLC

GismoPower LLC

Goal connect Co.,Ltd .

Green Action Studio

GreenFlux Assets BV

Greenlots

Greenphard Energy Inc.

Grid Solutions (formerly Nishihara)

GridBeyond, LLC

GridFabric LLC

GridNavigator

GridPoint

Gridscape Solutions

GRIDWIZ

GridX, Inc.

GSE LLC

Hangzhou Telehems Electonics Technology Co.,Ltd

Harvest Thermal

HawkenIO

Hitachi, Ltd.

Honeywell

HUGEMORI CORPORATION

Hypercharge Networks Corp

IC Systems

IDEAL INDUSTRIES, INC.

iesMACH

IHI Energy Storage

In-Charge Energy

Inda-Gro Induction Lighting

Industrial Technology Research Institute of Taiwan, R.O.C

Inergy Systems

Ingersoll Rand-Trane

innogy eMobility

Insight Energy Ventures LLC dba Powerley

Inspeerity

Institute For Information Industry

InTech Energy

Intellastar LLC

Intelligent Energy Solutions LLC / MidAmrican Energy Solutions

Intellihot Inc

Intellilum, Inc.

Intertek

Itron

Johnson Controls / CPower

Kaluza

KIGT Inc.

Kitu Systems

KnGrid

Kyocera

Lancium LLC

Landis+Gyr

LBNL

Legrand

Membership

Lennox International

LG Electronics Inc.

Liberty PlugIns Inc.

LiteTrace

Locbit, Inc.

Logistics Energy Korea Company, Ltd.

Loop, Inc.

LUMHOUSE ENERJI SANAYI VE TICARET ANONIM SIRKETI

Lunera Inc. [Former Lunera Lighting]

Lutron Electronics Co., Inc.

Manageon

MaxLite Inc.

MEIDENSHA CORPORATION

MelRok, LLC

Metergram

Micro-Star INT'L CO., LTD.

Mitsubishi Electric Corporation

MOEV Inc.

Monta

Murata Energy Solutions Americas

mwConnect

NaoDigital

NAONWORKS

National Cheng Kung University

National Electronics and Computer Technology Center (NECTEC)

Navien Inc.

ndustrial.io

NEC Corporation

NEC Engineering, Ltd. Is now Platforms

NExT-e Solutions Inc.

NextDrive Co.

NextEra Analytics LLC

Nhu Energy, Inc.

NIPPON KOEI Energy Solutions CO.,LTD.

Nippon Telegraph and Telephone Corp.

NISHIMU ELECTRONICS INDUSTRIES Co. Ltd.

Nissin Systems Co., Ltd.

Noodoe Inc

Nostromo Energy

NRG Energy, Inc

NURI FLEX

Nuri Telecom

Observant

Oi Electric Co., Ltd.

Olivine, Inc.

OMRON Corporation

OpConnect

Open Access Technology International, Inc.

Open Systems International Inc

OpenRoad Technologies Inc.

OPUS ONE SOLUTIONS

Orange Charger

Osaki Electric

OSRAM LTD [Digital Lumens Inc.]

Pacific Gas & Electric

Packetized Energy

Panasonic

Parsons (formerly IPKeys)

Pason Power

PAYENERGY A DBA of

Pointfar Automation LLC

Pelican Wireless Systems

Philips

Phoenix Energy Technologies

PLATFORMATICS INC.

Plimoth Bay Controls, LLC

Polaris Energy Services

Power X, Inc

PowerFlex Systems, LLC

PowerPump

Powertech Labs Inc.

Prescriptive Data Inc

Pro1 IAQ, INC

Quality Logic

QUARGE TECHNOLOGIES LLC dba EVCHRON

Quby International

RAB Lighting

Re:Power Inc.

Recargo, Inc.

Relation consulting

Reliable Controls Corporation

Renewable Japan Co.,Ltd.

REstore

RF Controls

Rheem Manufacturing Company

Rinnai

Rinnai New Zealand Ltd.

Saascharge, Inc.

Second Foundation Tech a.s.

SemaConnect, Inc

Serious Controls

Shadow Power

Shell

Shenzhen ELECQ Technology Co., Ltd

Shifted Energy

Shimmer Industries, Inc

ShirokumaPower Co., Ltd.

Shizen Connect

Siemens Canada Limited

Silvair, Inc.

Sinope technologies

Skycentrics

SLAC National Accelerator Laboratory

Small Planet USA LLC

SMSOFT

Sol-Ark, LLC (aka)-Portable Solar LLC

SolarPilot Energy

Solo Energy Limited

Spokane Edo LLC

SRP Salt River Project

Standard Euler, Inc. (d.b.a Flair)

Steffes ETS, LLC

Stonewater Controls

STRATIS IoT, Inc.

Sumitomo Electric

Sunnovations Inc.

SunPower Corp.

Sunverge Energy Inc.

Swell Energy

SWTCH Energy Inc.

Synop

SystemNihonKyushu

Systems Mechanics Ltd

Taiwan Electric Research & Testing Center (TERTEC)

Membership

Taiwan Testing and
Certification Center

TAKAOKA TOKO CO.,LTD

tekmar Control Systems Ltd.

Telkonet, Inc

Tellus Power

Tennessee Valley Authority

TeraWatt Infrastructure

THG Energy Solutions, LLC

ThinkEco

TIS Inc.

Toinx Co., Ltd.

TOSHIBA Corporation

TOYOTA TSUSHO CORPORATION

TRC Companies
[former Lockheed Martin]

TrickleStar Inc.

Trilliant

TTA (Telecommunications
Technology Association)

Turntide Technologies, Inc.
[former Riptide IO Inc]

Typhoon HIL Inc.

UL LLC

Unilectric, LLC

Universal Devices Inc.

Universal Electronics Inc

University Carlos III of Madrid

University of Southern Denmark

Vaughn Thermal Corporation

Veloce Energy Inc

Venstar Inc.

Ventyx / ABB

Virtual Peaker

VITO

Volta Charging, LLC

Voltus, Inc.

Wanbang Digital Energy Co., Ltd.

WattEV

Wevo Energy Ltd

WiSilica Inc

Wooam, Inc.

XCSpec, Inc.

Xeal Energy

XiO, Inc

Yardi–Enerliance

Yokogawa Solution
Service Corporation

ZEF Energy Inc.

Zen Within Inc.

Zero Impact Solutions

Zerova Technologies Taiwan Limited

Zevtron

株式会社 e 電力ソリューションズ

Adopter members:

Adnet d.o.o

CSA Group

EDF R&D

ElaadNL

Energy Solutions

E.ON Energistribution AB

ETC

ETRI

Hawaiian Electric Company

Internet Initiative Japan Inc.

KETI

Korea Electrotechnology
Research Institute

London Hydro

Énergie NB Power

New Hampshire

Electric Cooperative

NV Energy Inc.

Research Center of Energy,
Conservation for New Generation
of Residential, Commercial,
and Industrial Sectors

Resillion [former Eurofins
Digital Testing]

Sacramento Municipal
Utility District

STEM Inc

Transpower

Vermont Public Power
Supply Authority

TUV Rheinland Japan Ltd.