



FIRST ANNOUNCEMENT AND CALL FOR PAPERS

9th International Conference on Energy Efficiency in Domestic Appliances and Lighting (EEDAL'17)

13-15 September 2017

Irvine, CA, USA

The international community of stakeholders dealing with residential equipment, metering and lighting (manufacturers, retailers, consumers, governments, utilities, international organisations and agencies, academia and experts, etc.) have already gathered eight times at the **International Conference on Energy Efficiency in Domestic Appliances and Lighting (EEDAL)** (Florence 1997, Naples 2000, Turin 2003, London 2006, Berlin 2009, Copenhagen 2011, Coimbra 2013, Lucerne 2015).

The previous EEDAL conferences have been very successful in attracting an international audience. EEDAL has established itself as an influential and recognised international event to discuss the progress achieved and latest developments in technologies, behavioural aspects and policies. EEDAL is the venue to establish new collaborations and synergies and build international partnerships among stakeholders.

Following the success of the previous EEDAL conferences, **the California Plug Load Research Center (CalPlug) at the University of California, Irvine** and **the European Commission Joint Research Centre**, are pleased to announce:

The 9th International Conference on Energy Efficiency in Domestic Appliances and Lighting – EEDAL'17, 13-15 September 2017, Irvine, CA, USA

EEDAL'17 will provide a unique forum to discuss and debate the latest developments in energy and environmental impact of residential appliances and lighting, heating and cooling equipment, electronics, smart appliances, smart meters, consumer behaviour, the policies and programmes both adopted and planned. EEDAL will also address the technical and commercial advances in the dissemination and penetration of technologies and solutions.

The three-day conference will include plenary sessions where key representatives of governments and international organisations, manufacturers utilities, and academia will present their views and programmes to advance energy efficiency in residential appliances and lighting, for example, through international co-operation on product information and eco-design requirements. Parallel sessions on specific themes and topics will allow in-depth discussions among participants. The conference will also host ad-hoc workshops to review and advance international collaboration and will provide opportunities to strengthen existing and promote new initiatives and partnerships.

Call for Abstracts

To contribute to the success of the EEDAL conference, we **invite you** to participate in the conference and **to submit abstracts** on the following topics: policies and programmes (including monitoring, evaluation and international collaboration), smart equipment, smart homes and smart metering, equipment and on site generation new technology developments and user behaviour.

All papers shall address new and original developments. For the sessions on technologies, in particular only papers focusing on new advanced solutions will be considered. In addition, papers shall not be of commercial nature. The topics for papers are listed below; other suitable paper topics that meet the above criteria will also be considered.

Topics related to Consumer Behaviour, Polices and Programmes:

1. **Lifestyles and Consumer Behaviour:** looking ahead at how demand for new products and services is developing; exploring the scope for changes in consumer behaviour by fostering energy sufficiency and changes in life style. Influence of feedback systems. The role of social norms towards more sustainable behaviours. Users' acceptance and responses to new technologies, services, designs and energy-saving programmes.
2. **Global Climate Change Mitigation Policy:** impact of appliances, lighting and residential programmes, potential of clean development mechanism (CDM), joint implementation (JI), green investment scheme (GIS), carbon credits, and other funding mechanisms. Switching to low carbon fuels and decarbonisation of the residential sector.
3. **Focus on Developing Countries and Emerging Economies:** different approaches and strategies, policy framework, institutional aspects, capacity building needs, establishment of testing labs, new international partnerships.
4. **Strategies for Increasing Efficiency:** new policy tools, voluntary vs. mandatory approaches, policy analysis and evaluation, stimulating innovation (nationally and internationally), new programmes and barrier analysis, strategy development, priority setting, monitoring and review.
5. **Standards and Labels** (mandatory, voluntary, endorsement label and quality marks): design of and evaluation of programmes, impact of programmes, engineering and statistical analysis, the importance of compliance and enforcement, searchable databases, implementation of the EU Eco-Design Directive and the EU labelling Directives, top runners, ENERGY STAR, international harmonisation initiatives.
6. **Measurement Methods and International Harmonisation:** role of international standardisation bodies, harmonisation of test methods as a means of enhancing trade opportunities, convergence of test methods, new generation of test methods for intelligent appliances and equipment, potential for harmonizing around efficiency "tiers" rather than common specifications.
7. **Market surveillance and enforcement mechanisms:** are products actually performing as advertised or labelled? If not, what are the means for ensuring compliance and the consequences of non-compliance? This would include not only mandatory programmes like energy standards and building codes, but also compliance with voluntary market transformation programmes such as Energy Star.
8. **Market Transformation Programmes:** programme design and implementation, promotion campaigns, advertising campaigns, tools for information and advice for multipliers and end-users, other tools to promote the market transformation, role of public procurement.

9. **Smart Meters, Data Analytics, and End-use Metering** programme design, analysis methods, campaign results, non-intrusive methods, NIALM, advanced meters, informative billing, role of home automation for saving energy.
10. **Demand Response:** electricity tariffs for the residential sector (time-of-use, peak time rebate, critical peak pricing, real-time pricing), automated response by “smart devices” (e.g. smart thermostats, Home Area Network devices), direct load control, programme design, programme evaluation, successful examples. The requirements and potential of bidding aggregated residential load directly into the wholesale markets.
11. **Energy Services, Energy Efficiency Funds, Demand Side Management and ESCOs:** provisions of energy services, utilities' obligations, white certificates, DSM programmes, ESCOs role and potential in the residential sector, dedicated energy efficiency funds.
12. **Programme and Policies Monitoring & Evaluation:** methods for the monitoring and evaluation of programmes and policies, indicators, benchmarking, top down and bottom-up methodologies. Evaluation of energy and carbon savings.
13. **Designing for Diversity:** Examples of programs or policies that have succeeded in reaching diverse and underserved populations, including lower and middle-income households, non-native language speakers, households with lower educational attainment, or households of diverse race/ethnicities.
14. **Non Energy Benefits:** wider sustainability, including water and resources consumption, life cycle analysis and eco-design, sustainability standards, waste implications during and at end of product life, impacts on job creation, fuel poverty and innovation. Benefits beyond energy savings, such as new experiences and living conveniences from innovations. Indoor air quality.
15. **Financing:** incentives, innovative solution for financing efficient residential building, building refurbishment, renewable energy sources, and efficient appliances and equipment, including Clean Development Mechanisms (CDMs)
16. **Home and Residential Building Retrofit Programmes:** selection of efficient equipment in home retrofit programme (e.g. HVAC, lighting, etc.), implementation of retrofit programmes, consumer acceptance, financing, role of installers and manufacturers.

Topics related to specific Technologies:

1. **Residential Appliances/White Goods** (Refrigeration, Laundry, Dishwashing, Cooking): components' efficiency, R&D and innovation, technologies, test methods, usage patterns, programmes, market trends, the influence of product energy and resource usage feedback systems on behaviour.
2. **Residential HVAC and Water Heaters** (Central Heating Furnaces and Boilers, Heat Pumps, Central and Room Air-conditioners, Fans, Solar heaters), Water Heaters (gas, electric and solar), and Water Circulation Pumps: R&D and innovation, technologies, test methods, programmes, market trends, links to non-domestic markets. Indoor air-quality.
3. **Electronics** (Televisions, Set Top Boxes, PVRs, DVDs, Audio, Digital TV services, Power Supplies, Telephony), **Home Office Equipment, Broadband Communication Equipment,** and **Low Power Modes:** R&D and innovation, technologies, test methods, , programmes, market trends, stand-by losses, active and low power mode, technology transfer from non-domestic market
4. **Residential Lighting** (Luminaires, control systems and Light Sources): LEDs, OLEDs, CFLs, R&D and innovation, technologies, test methods, programmes, market trends, lighting usage, distribution and perception in the residential sector.
5. **Motor Technologies** for appliances (motors for air-conditioners, fans, washing machines, refrigerators, circulation pumps, etc.) and Motor Control Technologies

- (VSDs, power electronics): R&D, technologies, test methods, programmes, market trends.
6. **Smart and Clean On-site (residential) Power Generation:** micro-generation, fuel cells, renewable energy sources (solar, wind), energy storage (batteries), charging of electric vehicles, electricity distribution issues for the residential sector.
 7. **Net Zero Energy Residential Building and positive buildings:** specific HVAC equipment for passive houses (very low energy houses), integration of equipment and appliances with whole building design, passive techniques, high efficiency ventilation, renewable energy sources, thermal energy storage (mass, water, ice, etc.).
 8. **Smart Appliances, Home Automation, Smart Homes, Home Robots and Smart Grids:** smart appliances and equipment, smart meters and communication protocols, home energy management systems, households to be a key part of the smart grids, with storage and generation capabilities through renewable energies and demand response. Electric vehicles and implication for home energy systems, Domestic networks (security, automation, etc.) and their impact on energy consumption, Internet connected appliances, intelligent and advanced meters, technologies for real time pricing product energy and resource usage feedback systems using LAN communication to smart phones, tablets and PCs. Impact of IoT and edge devices. Defining and standardising 'smartness', Creating markets for smart appliances. Robotic appliances such as floor cleaners, mowers, telepresence robots, robotic toys, personal assistant robots, and more to come as home robotic technologies explode on the scene. Home office telepresence, 3D printing, electronic whiteboards, digital touch surfaces, pervasive video, Virtual Reality setups, and more.
 9. **Communities. Cities and Aggregation.** Residential energy solutions combining multiple homes, at the community, utility, or city level. Community Choice Aggregation (CCA).
 10. **Off-Grid Appliances and Energy Access:** technologies, successful implementation, policies and programmes and financing.
 11. **Active Energy Efficiency:** enabling buildings to not only use less electricity but allow them to consume when clean resources are available, such as wind and solar. Active energy efficiency increases the efficiency of the entire system, rather than only the building/household itself

Instructions for Authors

Authors interested in submitting papers are requested to send an abstract 200-400 words in length. The abstract must be in English.

Instructions for Authors for submission procedure:

1. Access the EEDAL'17 conference page in EasyChair (<https://easychair.org/conferences/?conf=eedal17>).
2. Login to Easy Chair or register first if you don't have an account.
3. Insert the Abstract text into the field provided by EasyChair, without name or affiliation, including topic (from the list above) and keywords in the required field. Please do not attach any document!

Abstracts are due by November 16th, 2016

Conference Information

For further information visit the conference website:

<http://iet.jrc.ec.europa.eu/energyefficiency/upcoming-events>

or send email to paolo.bertoldi@ec.europa.eu

Conference Deadlines

2016 November 16th: abstracts are due to conference secretariat

2016 December 21st: notification of abstracts acceptance

2017 February 28th: draft papers are due to the conference secretariat

2017 May 15th: reviewers' comments will be sent to authors

2017 June 30th: final papers due to the conference secretariat

2017 September 13th-15th: conference takes place in Irvine, CA, USA

About the University of California, Irvine, the 2017 EEDAL venue

Since 1965, UC Irvine has combined the strengths of a major research university with the bounty of an incomparable Southern California location. With 30,000 students, 1,100 faculty members and 9,700 staff, UCI is among the most dynamic campuses in the University of California system. UCI's unyielding commitment to rigorous academics, cutting-edge research, and leadership and character development makes the campus a driving force for innovation and discovery that serves our local, national and global communities in many ways.

UC Irvine researchers are tackling some of the biggest environmental and clean energy challenges of our time. The California Plug Load Research Center (CalPlug) was established at UC Irvine to improve energy efficiency in the use and design of plug-load devices. At CalPlug, innovation extends beyond research labs and into partnerships with industry, utilities, service providers, advocacy groups and policymakers.

For the sixth year running, UCI made the list of the top 10 "Coolest Schools" as announced by Sierra magazine. The annual ranking salutes U.S. colleges and universities that help solve climate problems, make significant efforts to operate sustainably, and help prepare the next generation of leaders in this arena.

Seventy is the miles-per-gallon equivalent that drivers of hydrogen-powered cars can get when they fill up with converted sewage waste at the first such fueling station in California, engineered by UC Irvine's National Fuel Cell Research Center. Twenty-five is the number of buildings at UCI that carry U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) certification.

How to reach Irvine, CA, USA

UC Irvine enjoys an incomparable coastal location with many advantages for recreational and cultural activities. Our campus is a short bike ride from the famed sailing and surfing beaches of Newport, Laguna, and Huntington, and is centrally located to hundreds of miles of bike and hiking trails, desert camping, and mountain resorts for snowboarding and skiing. Just a few miles from the campus are internationally famous venues such as Disneyland and Angel Stadium, and we are less than an hour from Los Angeles International Airport (LAX), Hollywood, and Palm Springs.