



## **FIRST ANNOUNCEMENT AND CALL FOR ABSTRACTS**

### **11<sup>th</sup> International Conference on Energy Efficiency in Domestic Appliances and Lighting (EEDAL'22)**

**1-3 June 2022  
Toulouse, France**

The international community of stakeholders dealing with residential energy consumption equipment, metering and lighting (manufacturers, consumers, governments, utilities, international organisations, academia and research) has already gathered ten 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, Irvine 2017, Jinan 2019).

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 energy efficiency 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 **University of Toulouse III Paul Sabatier** with the technical and scientific support of the **European Commission Joint Research Centre** are pleased to announce:

**The 11<sup>th</sup> International Conference on Energy Efficiency in Domestic Appliances and Lighting – EEDAL'22, 1-3 June 2022, Toulouse, France**

EEDAL'22 will provide a unique forum to discuss and debate the latest developments in energy and environmental impact of households, including appliances, lighting, heating and cooling equipment, electronics, smart meters, policies and programmes. EEDAL will also address non-technical issues such as consumer behaviour, energy access in developing countries and demand response.

The three-day conference will include plenary sessions where key representatives of governments and international organisations, manufacturers, utilities, private sector, ESCOs and service providers, financiers, NGOs, and academia will present the latest advancements in residential energy efficiency. Parallel sessions on specific topics will allow in-depth discussions among participants. The conference 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 new technology developments, user behaviour, policies and programmes (including monitoring, evaluation and international collaboration), smart equipment, smart homes and smart metering, demand side flexibility and on-site generation.

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. Suggested topics for papers are listed below; other suitable paper topics that meet the above criteria will also be considered.

### Topics related to Consumer Behaviour, Policies 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 and role of residential technologies, programmes and policies in NDCs, green investment scheme (GIS), carbon credits, and recycling revenues of ETSS. Electrification of buildings. Role of the Montreal Protocol's Kigali Amendment in efficient cooling. Switching to low carbon fuels and decarbonisation of the residential sector. Risk analysis. Impact of climate on residential energy. Residential buildings adaptation to climate change.
3. **Focus on Developing Countries and Emerging Economies:** different approaches and strategies, policy frameworks, institutional aspects, implementation mechanisms, financing instruments, capacity building needs, establishment of testing labs, new international partnerships.
4. **Strategies for Increasing Efficiency:** new policy tools, voluntary vs. mandatory approaches, such as building energy codes and building energy and/or environmental rating systems, 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 and Energy Labelling Directives, top runners, ENERGY STAR. Regional harmonization efforts.
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, 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. Use of new tools such as QR Codes and databases to simplify the MVE process.

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 (e.g. time-of-use, peak time, critical peak pricing, real-time pricing), automated response by “smart devices” (e.g., smart thermostats), direct load control, programme design, programme evaluation, successful examples. Load shifting to increase the integration of renewable energy generation. 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 and credit lines.
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 grid and building reliability and resilience, and new experiences and living conveniences from innovations. Indoor air quality and health impact.
15. **Financing:** incentives, innovative solutions for financing (on-bill, on-tax, PACE, etc.) efficient residential building, building refurbishment, renewable energy sources, large scale deployment of efficient appliances and equipment.
16. **Home and Residential Building Retrofit Programmes:** selection of efficient equipment in home retrofit programmes (e.g., HVAC, lighting), implementation of retrofit programmes, consumer acceptance, financing, role of installers and manufacturers, One Stop Shops.

#### 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, connected and smart appliances.
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. Role of evaporative coolers and district cooling/heating.
3. **Indoor Environmental Quality:** Residential air handling units, ventilation equipment, filters, air purifiers.
4. **Electronics** (Televisions, Set Top Boxes, PVRs, DVDs, Audio, Digital TV services, Power Supplies, Telephony), **Home Office Equipment, Broadband Communication Equipment**, miscellaneous electric loads (MELs), 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 markets.
5. **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.
  6. **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.
  7. **Valuing Efficiency as a Distributed Energy Resource and Smart and Clean On-site 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, efficiency as a resource, smart and flexible appliances.
  8. **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.
  9. **Smart Meters, 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, on-site generation and demand response/flexibility. Electric vehicles and implications for home energy systems, Domestic networks (security, automation, etc.) and their impact on energy consumption, Internet connected appliances. Robotic appliances such as floor cleaners, mowers, telepresence robots, robotic toys, personal assistant robots.
  10. **Communities. Cities and Aggregation**. Residential energy solutions combining multiple homes, at the community, utility, or city level. Community Choice Aggregation (CCA) and local energy communities.
  11. **Off-Grid Appliances and Energy Access**: technologies (e.g. PV, batteries, solar cooking, etc.), Local DC networks and DC appliances.

### Instructions for Authors

Authors interested in submitting papers are requested to send an abstract 200-400 words in length in one or more of the above topics. The abstract must be in English. Abstracts must be innovative, stimulate discussion and be free of commercialism.

Instructions for Authors for submission procedure:

1. Access the EEDAL'22 conference page in EasyChair (<https://easychair.org/conferences/?conf=eedal22>).
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!

### Conference Deadlines

October 16, 2021: Abstracts are due to the conference secretariat (via EasyChair)

October 29, 2021: Authors will be notified as to whether their abstracts have been accepted or rejected.

December 31, 2021: Authors have to submit draft papers

February 28, 2022: Authors will receive comments on draft papers

April 30, 2022: Final papers must be ready and submitted for inclusion in the conference proceedings.

June 1-3, 2022: EEDAL'22 takes place in Toulouse

### **EEDAL'21 International Programme Committee**

Alan Meier, Lawrence Berkeley National Laboratory, USA  
Aníbal T. de Almeida, University of Coimbra, Portugal  
Ashok Sarkar, World Bank, USA  
Benoit Lebot, Ministry for the Ecological Transition, France  
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