LINKY

New electricity meters

by Annik • Mon 06 Sep 2010 17:18

One of our French friends with a local second home comes round to us to pick up her emails from time to time. She has friends who send her stuff that makes her have steam coming out of her ears and I tend to imagine that they have a kind of virtual Daily Getsworse cuttings service going on between them.

However today she was outraged because of a piece from her consumer group about new electricity meters which will cost 230 euros and whose installation will be "enforced by Brussels". I looked the story up after she had gone and this is one of several pieces in "Le Parisien". I have no idea where "Le Parisien" stands in the political spectrum.

Here is an extract from one of the various articles published on the site about the subject.

Nouveaux compteurs électriques
Une directive européenne impose à la France de remplacer 80% des compteurs électriques par des boîtiers dits «communiquants».

Pourquoi changer tous les compteurs ?
La France compte actuellement 35 millions de compteurs. Sur ce total, 20 millions sont encore mécaniques (les fameux compteurs bleus) et 10 autres millions sont électroniques. Tous sont en parfait état de marche et pourraient encore servir de nombreuses années. Mais une directive européenne de 2006 impose à la France de les changer afin que 80 % des compteurs permettent d'ici à 2020 aux usagers de consommer intelligemment en agissant sur différents paramètres suivant les saisons, la météo, la température ou l'occupation de la maison ou de l'appartement.

Tous les anciens compteurs seront-ils remplacés ?
Oui. La France doit se plier à la directive européenne prise en 2006. Le remplacement des compteurs a même fait l'objet d'un article dans la loi du 7 décembre 2006 sur l'énergie qui prévoit l'ouverture totale du secteur à la concurrence à partir du 1er juillet 2007. C'est dans le cadre de cette loi qu'a été créé ERDF, la filiale à 100% d'EDF en charge de la distribution de l'électricité en France. Une filiale qui a reçu pour mission de piloter le déploiement des nouveaux compteurs intelligents....

Quel sera le montant de la facture ?
Il sera dans tous les cas élevé. De 4 à 5 milliards d'euros selon ERDF et plutôt 8 à 9 milliards selon la FNCCR (Fédération nationale des collectivités concédantes et régies). Motif : le temps d'intervention des équipes des sociétés prestataires pour installer ces nouveaux compteurs dans les foyers est beaucoup plus élevé que prévu. Il était prévu d'installer un compteur en vingt minutes. En réalité, cela peut prendre plusieurs heures, notamment dans certaines zones rurales. En France, les abonnés à EDF paieront environ 230 €. on est loin des 120 € prévus par ERDF. A titre de comparaison, au Canad, chaque

compteur a coûté 450 € dans l'état de l'Ontario, 250 € en Californie, 220 € en Suède et 190 € en Grande-Bretagne.

This is what the compteurs will look like - if I can get the attachment to work. (I have a feeling there will now be a multiple image.)

Does anyone have any further information?

Re: New electricity meters

by Dave • Tue 07 Sep 2010 08:57

This has been a long time in the making and I imagine that it will take ages to actually roll these out to people, especially if they are going to be charged up front (rather than via taxes or tariff supplements).

"Linky" as it appears to have been nicknamed is inevitable as most of the benefits are for the supplier who will never need to send someone to read your meter and can monitor your usage (and I expect cut you off remotely if it becomes dodgy or you don't pay - or at least cap your use).

The benefits to the consumer are thin. You can already see your current usage on a existing digital meter if you care to look, so this new meter won't reduce peoples usage much. It's much more complex and likely to go wrong and the suppler won't be coming out to check it for free. So the main benefit for you is no more estimated billing. Is that worth €230 each, several hundred lost jobs and hundreds of tonnes of perfectly serviceable meters in the bin?

Re: New electricity meters

by Annik • Tue 07 Sep 2010 09:13

Thanks very much for the explanation, Dave. I didn't know if it was a "Brussels imposes straight bananas" story or actually true.

We hoped it might not apply to us as we have a digital meter already, but apparently not.

Thanks.

Re: New electricity meters

by Dave • Tue 07 Sep 2010 09:31

There's an article here (in French) that explains it in more detail and provides links to more information on different issues with smart metering (mostly negative), where it says that a pilot is well under way and the national roll-out is expected to start in 2012. It also talks about Dutch resistance to their programme - perhaps a Dutch member can comment on this?

Re: New electricity meters

by Jeanne • Tue 07 Sep 2010 10:43

If it means loss of jobs for the French then they will be in no rush to install. They will delay as much as possible, and who can blame them.

Jeanne

Re: New electricity meters

by virtdave • Tue 07 Sep 2010 17:40

I surmise that the lost jobs (of meter readers) will not weigh too heavily. There's money to be made in the installation rollout (as per my grumpy post about the ERDF in another thread), and the 'straight bananas' analogy is pretty good. The folks who stand to gain in this mess may have bitten off a bit more than they can chew, perhaps if they'd stuck it to the end-user a bit less enthusiastically, they'd be getting away with it--and of course they still might well. I'm pleased that someone (e.g., the Dutch) at least is squawking.

Re: New electricity meters

by RobertArthur • Mon 13 Sep 2010 11:20

Paris decided recently with a *décret ministériel* that already in december this year the testperiod for these new meters will end. Wintertime testing not necessary? I always liked to mistreat electronic equipment with tests in a climate chamber, just wait and see what happens. But as I understand it, the roll out must go on, and quick. One technical issue that didn't get much attention yet is the way in which the good old *disjoncteur de branchement* used to react upon overload conditions. It has a slow reacting thermal mechanism on board. An overlaod of a few seconds or a few minutes, several amps above your *puissannce souscrite*, will not cut off your power. The new intelligent meters react, totally electronic as they are, immediately to every milliamp overconsumption, in milliseconds. One of the lucky consumers participating in one of the testregions told a reporter that she never had problems with her old meter, but with the new intelligent meter she had to go outside every other day (external meterbox, 20 meters from her house) to get the power back. Nice exercise in summertime, but at night, in wintertime? And the old lady interviewed is not the only one, it is (dys)functionality by design, read this. Let's hope that in the final design they build in a more tolerant behaviour. Otherwise a lot of clients will have to sign up for a higher *puissance souscrite*. For EDF/ERDF of course a business opportunity. Another point of concern: possible overvoltage damage. With a powergrid in the French countryside exposed as it is to lightning, the German experience as highlighted on the ZDF network a year ago might be an indication of possible problems. It's not the problem of "fried" meters, thats a full stop. But the problem of software damage inside, leading to erratic and false measurement of your power consumption. It has taken a lot of german consumers a lot of time arguing over excessive bills. But computer says..... The old disc meters keep on turning, summertime, wintertime, and will give me sufficient feedback about my energy behaviour. And do smart meters create smarter energy consumers? The assembled PR guys and girls try to convince us, in a style completely in line with former agitprop "information" in countries with a polit bureau. I have my doubts. No doubts with respect to pricing policies: everybody will try to finance program costs through a customer surcharge.

And what's going on in The Netherlands? Several companies have been busy introducing these meters gradually during the last few yars. In April 2009 a majority of the 75 members of the Senate (Eerste Kamer) of the Dutch Parliament put a veto on a bill to a compulsory introduction of the new intelligent meters. Reason: privacy concerns. The Minister for Economic Affairs tried to get a yes in this debate, by referring to the obligations of Brussels, and arguing that to be in line with this EU Directive she had to include even the sanction of going to prison (six months!) for those refusing the installation of a smart meter. Several earlier studies of independent research institutes however already had pointed out that the EU Directive addresses the business community: they have the obligation to provide the equipment, it's not the obligation for every EU citizen to have it installed. So dear Minister, you are a bit to severe with your proposals. You are "*plus royaliste que le roi*". And there you are in the middle of interpretation of EU law and directives. And the freedom for EU member states in the way they think directives should be implemented on a national level. Neither were the members of the Senate believers in the very optimistic figures about energy reduction, they were rather skeptical. But essential for their position was the idea that citizens should have the possibility to say no to the introduction of a "spy-meter" in their homes. With this dark cloud of no-sayers hanging above the Senate building the minister decided to take back her bill, already approved by the Dutch House of Representatives. To be amended in the future. So some rethinking and repositioning of the political frontline has been going on last year. Result: the Dutch goverment presented Parliament last week a new analysis of how to proceed. Key elements: freedom of choice and a better defense of privacy. Small scale roll out for a few years, evaluation, and by 2020 more than 80% of Dutch households equipped with a new intelligent meter. To comply with Brussels. Business case: a compulsory roll out: benefit € 1300 mln. The 80% plus scenario: benefit € 770 mln. Scenario of more than 20% "no": "the business case will not longer be positive" says Minister Maria van der Hoeven for Economic Affairs.

Robert

RobertArthur

329

Mar 2009

Re: New electricity meters

by Annik • Tue 14 Sep 2010 00:28

That's fascinating. Thank you.

Annik

Re: New electricity meters

by RobertArthur • Tue 14 Sep 2010 09:13

After the Dutch experience perhaps a few additional remarks about the French experience (any French members?). In *leParisien* some feedback about the tests of Linky. In the Tours region they planned to install 40.000 intelligent meters before the end of may this year. They managed to get 19.000 installed. And believe it or not, I checked it with other sources, only eight of them worked o.k. Yes, single digit, 8. The rest had problems, and most of them were programmed to work in basic mode: behaving as disc style meters or just like the already existing digital readout meters. And in Indre-et-Loire the same picture: only 18 of the 25.000 meters were "*effectivement communicants*". We were not able, due to infrastructure problems, to put all the functionalities to the test, was one of the EDF/ERDF answers. As soon as a "hardware" company starts talking like a politician, beware. Response from a consumer organisation: that's a well known fact of daily life for many French clients of EDF, so many black- and brown outs, micro-coupures, hours without electrictity. And that is why we had doubts from the beginning: would not it have been a better investment to improve the quality of the powergrid?
Probably it will be easier to get the new metering system working in cities and other densely populated areas, with more up to date cabling. And that's where the focus will be, trying to get as much households equipped with "Linky" in order to reach the Brussels 80% target in time. La campagne, la France profonde: that will be a technical challenge.

Robert

RobertArthur

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Re: New electricity meters

by Dave • Tue 14 Sep 2010 13:15

There is an interesting article on the BBC news site today, asking if smart meters actually reduce use:

Smart meters 'may not cut energy use'

They also have some links to smart metering basics.

Re: New electricity meters

by virtdave • Wed 22 Sep 2010 16:25

It seems the 'smart' meters are meeting with resistance in the USA too...Here is a link to an article today in the newspaper of the city nearest where I live in California. Sebastopol is a nearby town, near the Russian river. Russians were early settlers in northern California.....

Re: New electricity meters

by Snowbirds • Wed 22 Sep 2010 19:08

And here is the Canadian perpective, Toronto - same deal, won't save you any electricity and may cost your more/

Toronto — From Wednesday's Globe and Mail
Published on Tuesday, Sep. 14, 2010 9:34PM EDT

Last updated on Tuesday, Sep. 14, 2010 11:52PM EDT

The McGuinty government is looking at giving consumers a break on hydro prices under a program that critics say is not living up to its promise to save electricity users money and promote energy conservation.

Ontario is the first province in Canada to introduce time-of-use pricing designed to encourage electricity consumers to reduce consumption and run appliances during periods of lower demand, when power tends to come from cheaper, cleaner sources. The government has spent more than $1-billion on the program.

Premier Dalton McGuinty acknowledged on Tuesday that he is hearing the same complaints that opposition members are raising: many people who throw in a load of laundry late at night when electricity prices are lower are getting hit with higher hydro bills.

Under the current pricing system, he said, rates might not be low enough in off-peak hours to allow consumers to reap savings. Under time-of-use billing, consumers are charged 9.9 cents a kilowatt hour during peak periods (11 a.m. to 5 p.m. in the summer) and 5.3 cents during off-peak periods (9 p.m. to 7 a.m.).

“There should be an appropriate price differential in place that in fact rewards people for changing their behaviour,” Mr. McGuinty told reporters. “We want to make sure that the pricing signals are right so that there is a real savings associated with using electricity in off-peak periods.”

Opposition parties say the Green Energy Act, along with the harmonized sales tax that took effect July 1, adding 8-per-cent to bills, and higher prices for electricity during peak periods have all combined to drive up rates for consumers.

Mr. McGuinty did not say how his government plans to change the program. But Queen’s Park is grappling with the soaring cost of hydro amid worries that it will become a topic of debate during next year’s provincial election.

Opposition members are accusing the government of mismanaging the system. “Can the Premier explain why he spent a billion and a half dollars on a scheme that doesn’t conserve energy, but does raise people’s hydro rates?” New Democratic Party Leader Andrea Horwath said during Question Period on Tuesday.

Norma-Jean Campbell, a dog breeder in St. Thomas in southwestern Ontario, said she got a rude surprise when she opened her latest hydro bill. It had increased to $130 from about

$100.

“I just thought, when they put the smart meter in place and the HST on top of that, where is this going to go?” Ms. Campbell said in an interview. “I feel powerless.”

Local utilities have installed smart meters that allow consumers to monitor their electricity usage in 4.1 million homes in Ontario. The New Democrats released figures showing that 80 per cent of Toronto Hydro’s 500,000 customers on time-of-use billing have seen their electricity bills rise, and most are not changing their usage patterns.

A government official disputed that figure, saying 68 per cent of customers paid $2.79 more on average, while 32 per cent paid $7.40 less on average.

Snowbirds

Re: New electricity meters

by Annik • Thu 23 Sep 2010 00:01

That's fascinating. I must ask my husband's cousin in Ontario how it is affecting her.

Annik

Re: New electricity meters

by RobertArthur • Thu 23 Sep 2010 20:35

Let's consider the Canadian experience as a wake-up call. French consumer organisations, sometimes "dedicated followers of fashion", and echoing the EDF press releases, are getting a bit more critical. Once again the site of "60-mln" answers the questions we had in mind, but were afraid to ask.

Regards,

Robert

RobertArthur

329

Mar 2009

Re: New electricity meters

by David_J • Fri 24 Sep 2010 09:49

Apropos of nothing, my water meter has just been changed for a radio read variety at no charge - at least no up front charge.
David_J

Re: New electricity meters

by RobertArthur • Mon 13 Dec 2010 22:10

Three months later, anything new in France? Overall picture unchanged. We have seen some positive results of the Linky try-outs in participating cities, where the ERDF powerlines are in good shape. Elsewhere, the countryside, results are less encouraging as has been reported in the French newpapers, and already mentioned here on this website. In the Tours region only 8 intelligent meters out of 19.000 were *effectivement communicants*, and in the Indre-et-Loir region the same picture: 18 out of 25.000. So the fieldtest with these intelligent meters, because the communication infrastructure is not ready yet, difficult to realise given the ageing rural powergrid, is far from complete. EDF has been accused of neglecting the maintenance and necessary investments in the powergrid, leading to an increase of 50% in “downtime” over the last ten years. So nobody is really surprised. The 11th of may this year the newspaper “le Parisien” hit the headlines with: *“EDF accusé de laisser tomber son réseau”*. Because of investments all over the world. Perfect timing, because next morning at ten o'clock there was a meeting of the *Commission des affaires économiques* of the Assemblée nationale, discussing new government proposals to modify the regulation of the electricity market.

To counter the critics, consumer organisations and newspapers, minister Jean-Louis Borloo admitted already in june that there had been some difficulties, and said that they were going to study it, *“on va étudier ce sujet très en amont”*. And those who were complaining about the price to be paid for Linky (230 euros) shouldn't do that. *“L'objectif, c'est que le consommateur paie moins cher en reduisant sa consommation*.....Isn't it reasonable that you pay for something that will reduce your energy bill”. In september, the new president of the ERDF, mrs Michèle Bellon, declared in an interview in le Figaro the new Linky meter to be *“efficace et économe”*. We can understand that, was the immediate reaction of the unions: you are going to fire a lot of EDF employees in the near future, and you let the consumers pay for it.

It's all about the smart powergrid of the future. The CRE (*Commission de Régulation de l'Energie*) launched recently a new website, smart grids only, as part of the first *“think tank institutionnel français dédié aux smart grids”*. It's about industrial development and an international marketing strategy. Let 's hear what minister Borloo has to say about this, in his press release of September 15 th: *La réussite du programme Linky est un enjeu stratégique pour la France et les Français. Il s’agit : - de poursuivre la modernisation du système électrique français, en améliorant le service rendu aux usagers ; - d’accélérer la maîtrise des consommations d’énergie et les gains de pouvoir d’achat qui en résultent ; - de saisir l’opportunité pour notre pays d’être à la pointe dans un secteur industriel créateur d’emplois en plein essor au niveau mondial.*

In this same press release the test period for Linky has been extended till at least March 31th 2011, to allow testing in wintertime. So let's wait and see how things develop. And let's hope that they do something about the extreme sensitivity of these new meters for

inrush currents of say an electric heater, a vacuum cleaner and other comparable electric devices. The EDF answer so far is: you'll have to go to the next higher *puissance souscrite*. Read more about this so called *courbe de fonctionnement d'un disjoncteur* in a paper of Legrand, page 9. But isn't this the reason for building in some sort of delay in the overload behaviour of a circuit breaker, and isn't it the reason why you have to use slow-blow fuses when feeding powerhungry electric motors, with inrush currents sometimes the tenfold of their standard operating current? *Puissance souscrite* times ten?

What I forgot was to ask your attention for the Norwegian case. In this workshop paper (page 10) about smart metering the author mentions something one should not underestimate: maintenance and communication costs. To quote him: ".....if there is only one reading pr. month/week the costs are reasonable....If meter data is transmitted to the central system hourly (quarterly), which be necessary when centrally controlled and activated demand/response load shifting is introduced, the capacity limitations and costs of communication become an important issue.....". Well, the smart grid needs some smart thinking. And is there something as an intelligent meter? No, what we need is intelligent human behaviour, turn down the temperature control, and building insulation.

Robert

Re: New electricity meters

by RobertArthur • Sun 22 Jan 2012 10:59

In the ournal Officiel of January 10th the decision of the French government to give the green light for the full scale introduction of the new smart electricity meter, Linky. Consumer organisations as UFC/Que Choisir are not happy: about broken promises, no *suivi en temps réel* (default= dumb metering), more price rises to come. This is the story. The ERDF is continuing it's PR efforts, see this introduction to Linky. Not too much exact info about their time table: should be published sooner or later on their website, or ERDF's special smart meter website. Time horizon: Brussel's target of 80% smart meters in the EU memberstates in 2020.

Robert

Mar 2009

Re: New electricity meters

by RobertArthur • Tue 18 Dec 2012 10:22

There has been the sound of silence for many months. The French consumer organisation UFC-QueChoisir was, and is not happy at all. About broken promises, no two way communication possible because of a non-existing telecommunication infrastructure (dumb-meter approach), not in the interest of consumers, read their earlier observations in this article.

New masters of the *château* in Paris. One of the new ministers, mrs. Delphine Batho, a few days before her visit to the factory of Landis+Gyr in Mont Luçon, already explained to the members of the Economic Committee of the French *Sénat* that she is eager to "*reprendre en main le dossier Linky*". Surprise: installation of a *groupe de travail*. With unemployment at an alarming level, government has to prove that the so called "*redressement*" policy is not vapourware, but really exists.

So a few days later, bright lights, tv cameras, press, she visited the Landis+Gyr factory in Montluçon. Where they are going to produce seven million linky's per year between 2013 and 2018. This would help to prevent another plant closure. Or another threat by mr. Montebourg of nationalisation, trying to underline France's investment attractiveness. And would be needed to respect the smart metering targets set by Brussels for the European member states. But first there is another problem waiting for an answer: the consumer organisation Que Choisir went to the highest court, the *Conseil d'État*, trying to stop the introduction of Linky. In their words: *court-circuiter le faux compteur intelligent*.

Robert

Re: New electricity meters

by RobertArthur • Thu 04 Apr 2013 20:41

The Court, *le Conseil d'État*, has ruled: green light for the smart meter called Linky. From a legal point of view nothing will stop the general introduction of this meter, read this information of the French consumer organisation Que Choisir.

Robert

Re: New electricity meters

by SIMON • Fri 05 Apr 2013 16:37

does any one know when this department will be getting these new meters.

do you need a telephone line for them to talk to EDF or is it done via the electric cable.

Re: New electricity meters

by RobertArthur • Fri 05 Apr 2013 18:20

The exact timetable for the introduction of Linky is not crystal clear yet, but ERDF tries to provide some transparency with a special website. There was a special section on this website where you could fill in the 14 digit code of your *Point de Livraison* (PDL}, to be found on your EDF *facture*. To get some indication of their timetable. Perhaps I didn't try hard enough, but this service seems to have disappeared. Perhaps a bridge too far because of all the delays. There is now only a general statement: you will be informed in advance.

This is what the ERDF has to say: *"Au moment des opérations de remplacement, chaque client recevra à l'avance un courrier l'informant de la date à laquelle ERDF interviendra. Un numéro spécial sera ouvert au public et tous les renseignements nécessaires seront mis en ligne en plus des explications remises au moment de la pose (voir notices en bas de page)."*

About the communication possibilities of Linky: it is supposed to talk with CPL encoding, using your electric cable to a so called *concentrateur* in your local substation. And from there through the air (GPRS) to headquarters. Only one minor problem: most of this telecommunication infrastructure s non-existent at this moment. The not-so-smart-meter

approach, *le faux compteur intelligent*.

Timetable forecasting, personal opinion: Brussels has set 2020 as the finish line for the EU memberstates. In a (desperate?) effort to get somewhere in the neighbourhood of the EU target, 80% level of implementation, the ERDF/EDF will start with the cities, and probably not with far away villages and *lieu-dits* in the countryside of *la France profonde*.

Are you being served? My guess is that it will take several years before mr postman brings you the promised ERDF/EDF letter. As long as you belong to a species of mankind generally referred to as *" campagnards"*.

Robert

Re: New electricity meters

by RobertArthur • Fri 30 May 2014 10:53

New minister and the same old song. Mrs. Ségolène Royal, *la ministre de l'Écologie et de l'Énergie*, wants to speed up the introduction of the new smart meter, so she told the audience of this ERDF conference about the smart power grid. Do you remember? To help you, dear *citoyen* to control your energy usage and save money. With the help of little digital servants, communicating real time between your meter and ERDF headquarters.

Five days before this event took place, a committee report has been presented to the French Assemblée nationale. An evaluation of the 2008 climate policy measures (*le paquet « énergie-climat »*). It starts with a summary in ten key points. Under the fifth point, how to reinforce the information to the citizen, there is an old friend, our mr. Linky. Some critical notes: using this smart meter the ERDF will provide you only with aggregated data over weeks or months. If you want a more regular and precise feedback, you'll have to pay for it. If the ERDF gets the communication infrastructure in the air in time....Installing these meters is one thing, embedding them in an effective communication network is step two. Old fashioned solution: old meter + paper + pencil and take some notes every week.

Robert

Re: New electricity meters

by RobertArthur • Sat 11 Mar 2017 14:45

Several years without real new developments here in France. But there might be an input for the ongoing debate. Last week the University of Twente in The Netherlands published an interesting study about the measuring behaviour of smart meters. For the English speaking research world and for those who find it difficult to understand Dutch (or Chinese) there is a press release in English. The readings of several smart meters are – in certain conditions – sometimes much higher than the amount of energy consumed. The Dutch energy providers didn't dare to say words like: this is fake news. Their claim: the youngest generation of smart meters is better. So "only" a possible problem for the 850,000 households with the smart meters of yesterday.

This morning an article in The Telegraph. Earlier this week the German press was not amused (Der Spiegel and the Frankfurter Algemeine Zeitung). Silence in the French press, too busy with the presidential elections and PSG after the Barcelona defeat. On the

website of the French consumer organisations ne comment so far, from my keyboard as Robert Dumoulin. Let's wait and see if Mr. EDF and Mr.ENEDIS deem it necessary to react and defend their love baby LINKY as soon as the real French journalists wake up.

Re: New electricity meters

by RobertArthur • Sat 11 Mar 2017 22:47

Don't you worry, there is a display, and a manual, in French. For the three-phase meter this manual.

Re: New electricity meters

by RobertArthur • Mon 13 Mar 2017 17:07

A special service from ENEDIS for their clients from abroad, English LINKY instructions for the single-phase meter and also for the three-phase meter.

Re: New electricity meters

by RobertArthur • Thu 23 Mar 2017 16:27

The French press – la Tribune and le Figaro – starts asking questions about Linky, taking note of the smart meter study in the Netherlands. ENEDIS and the producers of Linky have reacted, see this press release.

Summary: the findings of the Dutch study cannot be generalised to LINKY, because these meters use a different measurement technology. Not a Hall effect sensor or Rogowski coil, but a low value shunt resistor (single-phase) and/or a special transformer (three-phase). And because LINKY conforms to all the relevant regulations.

This is of course reassuring news. If independent research can confirm these claims it would make the LINKY rollout easier for ENEDIS.

Re: New electricity meters

by RobertArthur • Mon 18 Dec 2017 12:39

With so many ENEDIS technicians installing these new LINKY smart meters the number of questions is rising. So time for a clarification about their power limiting behaviour. When they install a new Linky meter the main switch, the *disjoncteur de branchement* (DB), stays where it ever was. Two of it's three functions still fully operational: mechanical on/off switch and cutting off your supply in the case of an earth-leakage current of 500 milliamps or more. A helpful technician will stop your DB to perform it's third function, power-limiting. These traditional main switches can take a considerable amount of overload (+ 30 %) or nasty peak currents before coming into action. This belongs to the past from now on. It's up to the very fast electronic current limiting capabilities of the smart meter to prevent the *cher client* or *chère cliente* from going over his or her maximum. Only a tiny amount above the preset threshold and there you go to your meter. Outside? Nice exercise at night in wintertime. Take an electric torch with you to follow the instructions on the little display, fiddling with two push buttons to reset it. If it happens all the time you'll have to change to

the next higher tariff. From a *puissance souscrite* of 6 kVA to 9 kVA or from 9 kVA to 12 kVA single-phase. About electrical safety: even if you have a meter and DB outside, you should have an additional simple main switch inside. See this picture: http://up.picr.de/29028980gx.jpg

The predecessors of the smart meter - disc type and the electronic Sagem meters with lcd display (http://up.picr.de/31267471bg.pdf) - don´t have a switch or anything else capable of shutting down your supply. The new LINKY meter has, deep down under it's green plastic jacket, a switch triggered by clever electronics. No external old fashioned switch in sight. Only two push buttons (http://up.picr.de/31237473sk.jpg).

Re: New electricity meters

by charlie • Fri 29 Dec 2017 23:47

Our new Linky has already forced me to upgrade from 6kVA to 9kVA on our three phase system. Previously we got away with a 2kVA kettle and 1.5 kVA (wired as 3 phase) running together. After the Linky was installed I needed to reset the system after the inevitable 0.5kVA overload detection. That's about 20 Euros extra p.a. !!
At least the Linky is indoors and easily accessible. I also like the information available and that it is read remotely.
Thanks for all the detail about its operation.
Alistair
charlie
74
Dec 2004

Re: New electricity meters

by RobertArthur • Sat 30 Dec 2017 10:41

Alistair, may I take this opportunity for a word of advice for others where ENEDIS is going to fit the new Linky meter. Having a three-phase supply has always been a bit more complicated than single-phase. Because it is not too difficult to overload only one of the three phases - your puissance souscrite devided by three - and trigger the overload threshold of your main switch or the fast electronic power limiting of Linky. Switching off everything, not only one phase. With a single-phase supply you have much more "headroom". So why not consider the possibility to make the switch to a single-phase supply, easier to live with.

A second remark: if the necessary telecom infrastructure is in place, only then you will benefit from the smart meter reading capabilities of Linky. So one should not be surprised to receive a letter from EDF/ENEDIS asking you to continue to let Mr. Meterman have a look at your meter or continue with your own meterman activities online in your EDF *espace client*. The telecom infrastructure is still under construction and has been an Achilles' heel right from the start. Seven years ago already under discussion.

Re: New electricity meters

by charlie • Sat 30 Dec 2017 19:32

There is a long story about the choice of three phase for our house related in the main to our position at a remote site. Here is the short version!
The original supply was single phase which dropped from 230V to 180V under a modest

load which EDF agreed was out of spec and their cables needed a full upgrade over a distance of about 1km. They agreed to meet the whole cost but said there would be a delay. I thought the delay would be infinite so went ahead with a three phase rewire to alleviate the problem. Two years later we arrived at the house to find the promised upgrade was underway. It comprised 25 huge concrete pylons, our own transformer mounted 400m up the lane, new quad, high capacity cable and new fittings to the house. One other household had a new connection from the transformer. We could revert to a single phase connection which I could set up but not without some costs. At the moment we will continue with the existing system, including the three phase Linky.
On the subject of communications, it seems we are lucky enough to have the required infrastructure. Our recent bill corresponded exactly to my reading of usage from Linky and nobody has visited us. This "smart" feature is confirmed by changing from 6kVA to 9kVA by phoning the English speaking EDF number while in UK. He checked that he could communicate wth our Linky and completed the operation while I waited for a few minutes on the phone.
It is true that we are paying 20 euros extra per annum and we must still be careful about our balanced loading but it saves me a few days judicious modification and the associated costs. Our Linky would have to be changed as well.
Overall I expect to avoid any more work and stick to the status quo. I appreciate that your wise words of advice should be heeded by anyone without good reason to have a three phase system.

Alistair

Re: New electricity meters

by RobertArthur • Thu 05 Apr 2018 15:57

Never a dull moment. Another disadvantage, power limiting. No, not the nervous reaction of Linky seeing a very small overload. This time about real overloads. Once upon a time changing your *puissance souscrite* from let's say 6 kVa to 9 kVa needed a manual intervention by a technician, opening your *disjoncteur de branchement* (DB) and pushing a slider in higher gear. Those days have gone: it's now up to Linky to set a limit to your maximum power. The DB is still there, but only with it's 500 mA differential RCD function activated. Linky can be switched into higher gear by a mouse click somewhere at HQ EDF/ENEDIS. Nobody to check in what condition your cables are in, no check by a technician. In the case of a " long connection" to the grid too high a setting could be dangerous if the existing wiring is too thin for these higher currents. I wished I had discovered this, but it is Promotelec - with EDF, ENEDIS, Consuel and many important others in the supervisory board - with a recent warning asking the attention of the happy owners of a brand new Linky smart meter. A dumb design flaw.

Re: New electricity meters

by RobertArthur • Sat 21 Dec 2019 12:28

Every story has an end. How much water down the river Seine the last ten years, not too much however in *les rivières de Creuse* this summer, how many words about the introduction of the French smart meter LINKY? How many believers and non-believers, little wars of religion, lack of hard facts, lack of independent research? How much finger pointing by Paris and ENEDIS to the Emperor in Brussels, he wants it? All rise now, here comes the judge: this year several verdicts making it very hard to refuse. Only one year

ago the French consumer organisation 60-mlns-de-consommateurs tried to be your guide in refusal country. Now they must admit: further resistance (almost) useless. Their conclusion: " *Plusieurs décisions de justice relatives au compteur Linky ont été rendues depuis un an. S'opposer à son installation est impossible, sauf exceptions*."

Practicalities: notification by ENEDIS: 30 to 45 days before installation date.

Re: New electricity meters
by Creusebear • Sun 22 Dec 2019 13:35

Ours was fitted earlier this year. I'm none the wiser as to its benefits.

Re: New electricity meters
by RobertArthur • Sun 22 Dec 2019 17:12

None the wiser? Let me try to summarise.

Smart grid benefits for EDF / ENEDIS:

1/ Firing Mr Meterman;
2/ Your power measured in kVA and not in kW (extra income for EDF);
3/ About 5% of the clients has to upgrade to a higher *puissance souscrite*;
4/ Possibility to change your tariff easily from HQ;
5/ In case of national or regional emergency: cut down on power consumption everywhere, remote limiting of maximum power of all smartmeters;
6/ Easier to track down, and switch off, clients who are not very willing to pay their bills;
7/ Possibilities for the French industry to export LINKY knowhow. Remark: many of the components you'll find inside LINKY are the same as everywhere, only a handful of chip manufacturers worldwide (not in France....).

Smart grid benefits (?) for the client:

1/ You see immediately what you're consuming. Go to your smartphone, tablet, laptop or desktop, log in, and there you are: your consumption. Several remarks: I do know for quite some time that switching off a light lowers my consumption. In the past this supposed hightech feedback was already available. The telecom infrastructure to achieve this online feedback is still under construction.
2/ No appointments to be made with Mr Meterman;
3/ Easier billing, the *facture* should be more in line with your actual consumption.
4/ Easy to change tariff.

General remarks:

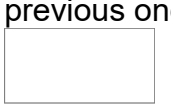
1/ Several clients have been reporting about the attractiveness of the new LINKY meters (smell?) for all type of insects, nice nest here, internal short circuit, burning down the new meters.
2/ Initially the guys installing the new meters were in such a hurry that they did not always tighten the screws with a special torque screwdriver (rather expensive), resulting in several fires.
3/ For backup purposes there is a little coin battery inside LINKY, the familiar CR2032.

However: it has been soldered on to the printed circuit board. Not easy to replace. No problem says ENEDIS: we use special select long life batteries, should last twenty years or more. *On verra*.
4/ Lightning and overvoltages: newer generations of electronic equipment have very complex chips on board, more vulnerable. Time will tell.

Re: New electricity meters

by Dave • Wed 08 Jan 2020 11:25

We got our new Linky in December. It only took 10 minutes to change over and it's worked fine since, but I have to say that from my POV it seems no better or more helpful than the previous one.



Re: New electricity meters

by RobertArthur • Wed 08 Jan 2020 12:53

Simon, about timing. Not more than an indication: input your *code postal* in this interactive map provided by ENEDIS (they should know).

More precision: four weeks before date x, y or z ENEDIS will send you a letter.

Re: New electricity meters

by RobertArthur • Mon 24 Aug 2020 13:17

Ten years ago we saw the start of this thread. Now is the time for some transparency, at last: what is exactly hiding under the green cover of LINKY? In this article a closer look. There are six companies producing LINKY, to the specifications of ERDF/ENEDIS of course, but sometimes using different components from only a few international factories. Not made in France, assembled in France.....So there are several subtle differences between all these LINKYs. As a backup battery several models use a not unfamiliar coin type, the CR2032. Not easy replaceable, soldered onto the printed circuit board. Promises made by the battery manufacturer: life expectancy of twenty years. Let's wait and see.

Complaints about the trigger happiness of LINKY in the case of a short overload (inrush current of an electric motor etc.) have been taken on board of the software algorithm surveilling shorts and overloads. The overload curve seems to be more foregiving in the newer versions, it comes closer to the *courbes de déclenchement* of the old main switch, the disjoncteur de branchement. Still performing it's emergency switch function and with it's fault current protection of 500 mA still in place. Without the short and overload protection, now taken care of by the electronics of LINKY.

Fire risks: the subcontractors had to hurry, renumeration by ERDF/ENEDIS wat not stellar. Employing "qualified" technicians (a few days training course) and using standard screwdrivers was not helpful. An almost loose connection is not a good idea in a high current environment, contact resistances trying to imitate an electric heater. So the ERDF made the use of constant torque screwdrivers compulsory as we can read here: " *Un mode opératoire très précis est délivré aux entreprises de pose avec une Norme de serrage imposée (couple de serrage 5N/m) ; · Les entreprises de pose doivent équiper*

leurs techniciens d'un tournevis dynamométrique garantissant ce couple de serrage. Un système de pénalités (fortes) a été mis en place auprès des entreprises de pose en cas de constat de mauvais serrage."

Will our friend LINKY reach the respectable age - more than fifty years - of the electromechanical, almost indestructible *compteur bleu*? Looking at the replacement speed of my desktop computers and laptops the last forty years I do have my doubts about it.